

Dayton School District #8

Annual IPM Report

January 6, 2023

Report completed by IPM Plan Coordinator, Otto Rice.

Report presented to the Dayton School District #8 Board of Directors at the January 11, 2022, Regular Board meeting.

Short Written Summary of Overall Pest Management for the Year:

Otto Rice completed IPM training for the State of Oregon in July, 2021 (was scheduled to do course in December 2022, but missed due to illness). Dayton School District has posted required notices prior to application of pesticides. Indoors, ants continue to be a concern. There are small ants that are attracted to food. There are also carpenter ants in the framing. DSD has a pest company to start monitoring and treating. This will include the use of monitoring boxes in the areas of concern.

We continue to educate teachers on keeping rooms clean of food and packaging food properly. Custodians are instructed to change out trash bags if they are dirty with food or drink.

Dayton School District contracts with C and D Landscape Company, an approved pesticide applicator, for lawn maintenance which includes weed control and fertilization. A record of applications is included in report.

Ants were sited in the District Office. Yellow jackets were sited at the Grade School in the ground near the playground. Rats were reported near the dumpsters, but none were caught. A mouse got into an office room in the 20 building. A better sweep was installed. Traps were set but the mouse seemed to have not returned. Likely the sweep kept it out. Carpenter ants showed up in various classrooms in the High School main building. This reportedly occurs each spring. Evergreen Pest identified these and is monitoring. Evergreen is also monitoring District Office and Board Room buildings for smaller ants.

DATA FROM INDIVIDUAL SCHOOL (first part)

Date: 1-6-2023

Name of School: Dayton Grade School

Pests, pest-conducive conditions, actions taken, Costs (taken from pest logs):

Number of Pest Sightings Reported:

Small ants: 0 groups

Bats: 0

Cockroaches: 0

Spiders: 0

Yellow Jackets: 0

Rodents: 1 mouse

Gophers: 12

Other: 0

Number and Type of Pest Conducive Conditions:

Standing water in Kitchen: 0

Window screens missing or torn: 0

Gap under external door: 0

Other: 0

Number of Actions Taken:

Sanitation – Cleaned up Area: 1

Reduced Clutter: 0

Set rodent traps: 0

Sealed up hole or crack: 1

Fixed screen: 0

Installed external door sweep: 0

Pesticide Application: 0

Breakdown of prevention and management steps taken that proved to be ineffective and led to the decision to make a pesticide application:

Prevention and Management Steps and Date(s): n/a

Why Prevention and Management Steps Ineffective: n/a

DATA FROM INDIVIDUAL SCHOOL (second part)

Dayton Grade School

Costs (from Pest Logs):

Gopher traps: \$35

Sticky traps: 0

Spider traps: 0

Monitoring Boxes: 0

Mouse traps:

Rat traps: 0

Pest Management Professional:

Pesticides (wasp spray): 0

Total: \$35.00

Costs (from Grounds Records):

Propane Fuel for flame weeders

Pest Management Professional (gopher patrol): \$0

Pesticides: 0

Total: \$0

DATA FROM INDIVIDUAL SCHOOL

Date: 1/9/2023

Name of School: Dayton Junior High School and Dayton High School (shared campus)

Pests, pest-conducive conditions, actions taken, Costs (taken from pest logs):

Number of Pest Sightings Reported:

Small ants: 4

Bats: 0

Cockroaches: 0

Spiders: 0

Yellow Jackets: 1 nest

Other: 1 mouse caught

Number and Type of Pest Conducive Conditions:

Standing water in Kitchen: 0

Window screens missing or torn: 6

Gap under external door: 0

Other: 0

Number of Actions Taken:

Sanitation – Cleaned up Area: 1

Reduced Clutter: 1

Set rodent traps: 6 mouse traps, 4 rat traps

Sealed up hole or crack: 0

Fixed screen: 0

Installed external door sweep: 1

Pesticide Application: 0

Breakdown of prevention and management steps taken that proved to be ineffective and led to the decision to make a pesticide application:

Pest Problem and Date(s): Carpenter ants observed 2021.

Prevention and Management Steps and Date(s): Hired Evergreen Pest Management

Why Prevention and Management Steps Ineffective: N/A

Pesticide Applied and Date: N/A, still monitoring.

DATA FROM INDIVIDUAL SCHOOL (second part)
Dayton Junior High School and Dayton High School (shared campus)

Costs (from Pest Logs):

Sticky traps \$34

Spider traps \$0

Monitoring Boxes \$0

Mouse traps \$21

Rat traps \$14

Pest Management Professional \$799.32

Pesticides (ant traps) \$0

Total: \$868.32

Costs (from Grounds Records):

Pest Management Professional: \$0

Total: \$0

Appendix 2

Annual IPM Inspection Form (Pests and Pest Conducive Conditions Checklist)

School District: Dayton School District #8

School or Site	Grade School
Date	1-6-2023
Inspected by	Otto Rice

Entryways	Yes	No	Not Sure	N/A
Doors closed when not in use	x			
Doors shut tight and close on their own	x			
Door sweeps installed so no ¼" gaps	x			
Cracks & crevices around door are sealed	x			

If pests are present in the area, write what kind here _____

Notes: SLC door is exception. Needs concrete ground down outside to allow for proper usage of door sweep. Decision made that temporary stop to be put in at night. Alternative is sweep can be installed, however door won't close then.

Outside Areas	Yes	No	Not Sure	N/A
Area free from trash, old vehicles, other pest attractants	x			
All trash cans have secure lids		x		
Trash cans cleaned regularly	x			
Site has good drainage and is free from standing water	x			
Bushes, shrubs, trees at least 18" from building	x			
Tree branches not overhanging roof	x			
All dumpsters located away from building	x			
All dumpsters clean		x		
No gaps between windows or screens and frame	x			
Eaves and roofs free from birds, wasps, etc.		x		
Play structures free from wasp harborage areas	x			

If pests are present in the area, write what kind here: birds in play shed.

Notes: The dumpsters are cleaned by the trash company, usually during the summer. We wash with bleach occasionally. We had a dumpster replaced this year. It was leaking out of bottom.

Kitchen and Food Preparation Area	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			
Trash emptied daily	x			
Door sweeps installed so no ¼" gaps	x			
Floor at every corner is clean and without signs of pests	x			
Area is free of standing water	x			
Floor drains and floor sinks are clean	x			
All faucets close properly and have no leaks or drips	x			
Under stoves, sinks, and dishwasher kept clean	x			
No open holes or other access to outside	x			
Any cracks in walls or floors are sealed properly	x			
Windows have screens on them				x
Vents are free of grease and dirt	x			
Storage is kept off the floor on wire rack shelving	x			
Food is put away and stored properly in sealed containers	x			
Cardboard boxes present	x			
No long term storage of anything in cardboard boxes	X			
Pest monitors (sticky traps) are present and dated	x			
Pest log is posted	x			
Breaker boxes free of evidence of pests	x			

If pests are present in the area, write what kind here _____

Notes:

Vents are cleaned on a regular schedule.

Custodial and Custodial Closets	Yes	No	Not Sure	N/A
Area is free of unauthorized pesticides	x			
Mops are clean and hanging up when not in use	x			
Closets are free of trash and food	x			
Custodial closets are in good order and organized	x			
Trash cans and maid carts are emptied daily and clean	x			
Break area is clean and free of food, crumbs and trash	x			
Storage areas free of items stored in cardboard boxes	x			
Break area free of cloth covered couches and chairs				x
Custodians are trained in the IPM process	x			
IPM records (including pest logs, monitoring trap data, pest management actions, etc.) are on file	x			

If pests are present in the area, write what kind here _____

Notes:

Boiler Rooms and Fan Rooms	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			
Room is free of standing water	x			
Room is cleaned regularly		x		
Room is free of trash and food	x			
Room is free of storage, especially in cardboard boxes		x		
Floor drains are clean	x			
Plumbing is free of leaks and condensation		x		
Cracks or holes in floors and walls are sealed properly	x			
Outside air intakes are properly screened & free of trash	x			

If pests are present in the area, write what kind here _____

Notes: Boilers and water heaters regularly release condensation onto floor. It makes its way to the drain. This is by design.

Teachers Lounge	Yes	No	Not Sure	N/A
Room is free of cloth couches and chairs		x		
It's clean behind and under microwave	x			
It's clean under and behind vending machines				x
It's clean inside, under, and behind the refrigerator	x			
All counters clean and free of food bits and such	x			
Floor at every corner is clean and without signs of pests	x			
Under sink is kept clean	x			
Cupboards clean and any food is in sealed containers	x			
Free of unauthorized pesticides	x			
Pest monitors (sticky traps) are present and dated	x			
Pest log is posted		x		

If pests are present in the area, write what kind here:

Notes:

Offices	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	X			
Free of clutter	X			
Indoor plants healthy and free of pests	X			
Desks, closets, and cubbies clean and free of food, clutter	X			
All food items are stored in sealed plastic containers	X			
Animal or bird cages are clean in and around the area				x
Any pet food is stored in sealed plastic containers				x
Sinks are free of dripping or standing water	X			
Gaps or holes under sinks or counters have been sealed	X			
Holes or gaps to the outside are sealed	X			
Outside windows and doors close tight and have no gaps	X			
Window screens (if any) are in good repair	X			
Nothing (except short-term) is stored in cardboard boxes	x			

If pests are present in the area, write what kind here _____

Notes:

Classrooms	Yes	No	Not Sure	N/A
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Free of unauthorized pesticides	x			
Free of clutter		x		
Indoor plants healthy and free of pests	x			
Desks, closets, and cubbies clean and free of food, clutter	x			
All food items are stored in sealed plastic containers	X			
Animal or bird cages are clean in and around the area	X			
Any pet food is stored in sealed plastic containers	X			
Sinks are free of dripping or standing water		X		
Gaps or holes under sinks or counters have been sealed	X			
Holes or gaps to the outside are sealed	X			
Outside windows and doors close tight and have no gaps	X			
Window screens (if any) are in good repair	x			
Nothing (except short-term) is stored in cardboard boxes		x		

If pests are present in the area, write what kind here: ants

Notes: long term storage in cardboard boxes in some rooms.

Notes:

Other Room: Gym Area	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			
Room is free of standing water	x			
Room is free of trash and food	x			
Room is free of storage, especially in cardboard boxes	x			
Any food items are stored in sealed plastic containers	X			
Free of clutter	X			
Cracks or holes in floors and walls are sealed properly	X			
Outside windows and doors close tight and have no gaps	X			
Window screens (if any) are in good repair	x			

If pests are present in the area, write what kind here _____

Notes:

Appendix 2

Annual IPM Inspection Form (Pests and Pest Conducive Conditions Checklist)

School District: Dayton School District #8

School or Site	Junior High and High School (shared campus)
Date	1-6-2023
Inspected by	Otto Rice

Entryways	Yes	No	Not Sure	N/A
Doors closed when not in use	x			
Doors shut tight and close on their own	x			
Door sweeps installed so no ¼" gaps	x			
Cracks & crevices around door are sealed	x			

If pests are present in the area, write what kind here _____

Notes:

Outside Areas	Yes	No	Not Sure	N/A
Area free from trash, old vehicles, other pest attractants	x			
All trash cans have secure lids		x		
Trash cans cleaned regularly	x			
Site has good drainage and is free from standing water	x			
Bushes, shrubs, trees at least 18" from building		X		
Tree branches not overhanging roof		X		
All dumpsters located away from building		X		
All dumpsters clean		x		
No gaps between windows or screens and frame	x			
Eaves and roofs free from birds, wasps, etc.	x			
Play structures free from wasp harborage areas				x

If pests are present in the area, write what kind here _____

Notes: We wash with bleach occasionally. Trees and shrubs are trimmed, but still hang over building. No limbs or shrubs come in contact with buildings.

Kitchen and Food Preparation Area	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			
Trash emptied daily	x			
Door sweeps installed so no ¼" gaps	x			
Floor at every corner is clean and without signs of pests	x			
Area is free of standing water	x			
Floor drains and floor sinks are clean	x			
All faucets close properly and have no leaks or drips	x			
Under stoves, sinks, and dishwasher kept clean	x			
No open holes or other access to outside	x			
Any cracks in walls or floors are sealed properly		X		
Windows have screens on them				x
Vents are free of grease and dirt	x			
Storage is kept off the floor on wire rack shelving	x			
Food is put away and stored properly in sealed containers	x			
Cardboard boxes present		X		
No long term storage of anything in cardboard boxes	X			
Pest monitors (sticky traps) are present and dated		X		
Pest log is posted		X		
Breaker boxes free of evidence of pests	x			

If pests are present in the area, write what kind here _____

Notes:

A water leak resulted in holes in walls that need to be repaired.

Custodial and Custodial Closets	Yes	No	Not Sure	N/A
Area is free of unauthorized pesticides	x			
Mops are clean and hanging up when not in use	x			
Closets are free of trash and food	x			
Custodial closets are in good order and organized	x			
Trash cans and maid carts are emptied daily and clean	x			
Break area is clean and free of food, crumbs and trash				x
Storage areas free of items stored in cardboard boxes		x		
Break area free of cloth covered couches and chairs				x
Custodians are trained in the IPM process	x			
IPM records (including pest logs, monitoring trap data, pest management actions, etc.) are on file	x			

If pests are present in the area, write what kind here _____

Notes:

Boiler Rooms and Fan Rooms	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			
Room is free of standing water	x			
Room is cleaned regularly		x		
Room is free of trash and food		X		
Room is free of storage, especially in cardboard boxes		X		
Floor drains are clean	x			
Plumbing is free of leaks and condensation	x			
Cracks or holes in floors and walls are sealed properly	x			
Outside air intakes are properly screened & free of trash	x			

If pests are present in the area, write what kind here _____

Notes: Boiler rooms need to be cleaned and are used for storage of some items.

Teachers Lounge	Yes	No	Not Sure	N/A
Room is free of cloth couches and chairs	x			
It's clean behind and under microwave	x			
It's clean under and behind vending machines				X
It's clean inside, under, and behind the refrigerator	X			
All counters clean and free of food bits and such	X			
Floor at every corner is clean and without signs of pests	X			
Under sink is kept clean	X			
Cupboards clean and any food is in sealed containers	X			
Free of unauthorized pesticides	X			
Pest monitors (sticky traps) are present and dated		X		
Pest log is posted		X		

If pests are present in the area, write what kind here _____

Notes:

Offices	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			
Free of clutter	X			
Indoor plants healthy and free of pests	X			
Desks, closets, and cubbies clean and free of food, clutter	X			
All food items are stored in sealed plastic containers	X			
Animal or bird cages are clean in and around the area				x
Any pet food is stored in sealed plastic containers				x
Sinks are free of dripping or standing water	X			
Gaps or holes under sinks or counters have been sealed	X			
Holes or gaps to the outside are sealed	X			
Outside windows and doors close tight and have no gaps	X			
Window screens (if any) are in good repair	X			
Nothing (except short-term) is stored in cardboard boxes		x		

If pests are present in the area, write what kind here:

Notes:

Classrooms	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			

Free of clutter		X		
Indoor plants healthy and free of pests	x			
Desks, closets, and cubbies clean and free of food, clutter		X		
All food items are stored in sealed plastic containers	x			
Animal or bird cages are clean in and around the area				x
Any pet food is stored in sealed plastic containers				x
Sinks are free of dripping or standing water	x			
Gaps or holes under sinks or counters have been sealed	x			
Holes or gaps to the outside are sealed	x			
Outside windows and doors close tight and have no gaps	x			
Window screens (if any) are in good repair		x		
Nothing (except short-term) is stored in cardboard boxes		x		

If pests are present in the area, write what kind here:

Notes: Have some screens that need repair. Food is consumed in classrooms daily resulting in much food spilled on floors.

Other Room: Gym Area	Yes	No	Not Sure	N/A
Free of unauthorized pesticides	x			
Room is free of standing water	X			
Room is free of trash and food	x			
Room is free of storage, especially in cardboard boxes	x			
Any food items are stored in sealed plastic containers	X			
Free of clutter	x			
Cracks or holes in floors and walls are sealed properly	x			
Outside windows and doors close tight and have no gaps	x			
Window screens (if any) are in good repair				x

If pests are present in the area, write what kind here _____

Notes:

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Lawns
Technician(s):		Approx. Start Date:	Completion date:	Application:
Robert Burnell	License # AG-L1050275APL	2/21/2022 2:18:20 PM	2/21/2022 3:34:20 PM	R1

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Bifenthrin I/T 7.9	71000.00 ft ^	66222-190	35.50 flz	Bifenthrin	0.50 flz/1000sqft	Truck Tank

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	
Technician(s):		Approx. Start Date:	Completion date:	Application:
License #		3/4/2022 2:44:00 PM	3/5/2022 12:00:00 AM	R2

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Fertilizer 24-0-06	71000.00 ft ²	090698	248.50 lb	Nitrogen,Phosphate, potash,Sulfur	4.00 lb/1000sqft	N/A

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Lawns
Technician(s):		Approx. Start Date:	Completion date:	Application:
Robert Burnell	License # AG-L1050275APL	3/25/2022 1:47:13 PM	3/25/2022 3:03:13 PM	R3

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Speed Zone	71000 00 ft ²	2217-833	85 20 flz	2,4-D, Mecoprop-p, Dicamba, Carfentrazone-ethyl	1.20 flz/1000sqft	Truck Tank

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Lawns
Technician(s):		Approx. Start Date:	Completion date:	Application:
Kyle Anderson	License # AGL-1056804APL	5/13/2022 3:17:29 PM	5/13/2022 4:33:29 PM	R4

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Fertilizer 24-0-06	71000.00 ft ²	090698	248.50 lb	Nitrogen,Phosphate, potash,Sulfur	3.50 lb/1000sqft	
Speed Zone	71000.00 ft ²	2217-833	85.20 flz	2,4-D, Mecoprop-p, Dicamba, Carfentrazone-ethyl	1.20 flz/1000sqft	Back pack Sprayer

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Lawns
Technician(s):		Approx. Start Date:	Completion date:	Application:
Robert Burnell	License # AG-L1050275APL	8/22/2022 3:44:00 PM	8/23/2022 12:00:00 AM	R5

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Fertilizer 24-0-06	71000.00 ft ^	090698	248.50 lb	Nitrogen,Phosphate, potash,Sulfer	4.17 lb/1000sqft	
Speed Zone	71000.00 ft ^	2217-833	85.20 flz	2,4-D, Mecoprop-p, Dicamba, Carfentrazone-ethyl	1.20 flz/1000sqft	Back pack Sprayer

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Lawns

Technician(s):	Approx. Start Date:	Completion date:	Application:
Robert Burnell License # AG-L1050275APL	10/22/2022 9:24:14 AM	10/22/2022 10:40:14 AM	R6

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Lime	71000.00 ft ²		710.00 lb		10.00 lb/1000sqft	
Speed Zone	71000.00 ft ²	2217-833	85.20 flz	2,4-D, Mecoprop-p, Dicamba, Carfentrazone-ethyl	1.20 flz/1000sqft	Back pack Sprayer

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Beds
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Kyle Anderson License # AGL-1056804APL	2/21/2022 2:10:25 PM	2/21/2022 3:23:25 PM	BC1	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Cheetah Pro	71000.00 ft ²	228-743	142.00 flz	Glufosinate ammonium	2.00 flz/1000sqft	Backpack Sprayer

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Beds
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Robert Burnell License # AG-L1050275APL	3/5/2022 1:12:22 PM	3/5/2022 2:28:22 PM	BC2	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Dimension 2EW	71000.00 ft ²	62719-542	35.50 flz	Dithopyr	0.50 flz/1000sqft	Backpack Sprayer
Gallery SC	71000.00 ft ²	62719-658	35.50 flz	Isoxaben	0.50 flz/1000sqft	

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Beds
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Robert Burnell License # AG-L1050275APL	3/25/2022 1:47:19 PM	3/25/2022 3:03:19 PM	BC3	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Cheetah Pro	71000.00 ft ²	228-743	142.00 flz	Glufosinate ammonium	2.00 flz/1000sqft	Back pack Sprayer

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Beds
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Robert Burnell License # AG-L1050275APL	5/16/2022 1:56:59 PM	5/16/2022 3:12:59 PM	BC4	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Cheetah Pro	71000.00 ft ²	228-743	142.00 flz	Glufosinate ammonium	2.00 flz/1000sqft	Back pack Sprayer

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Beds
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Robert Burnell License # AG-L1050275APL	8/22/2022 3:44:00 PM	8/23/2022 12:00:00 AM	BC5	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
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Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	All Lawns
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Robert Burnell License # AG-L1050275APL	10/14/2022 3:44:00 PM	10/15/2022 12:00:00 AM	R7	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Fertilizer 24-0-06	71000.00 ft ²	090698	248.50 lb	Nitrogen, Phosphate, potash, Sulfur	3.50 lb/1000sqft	NA

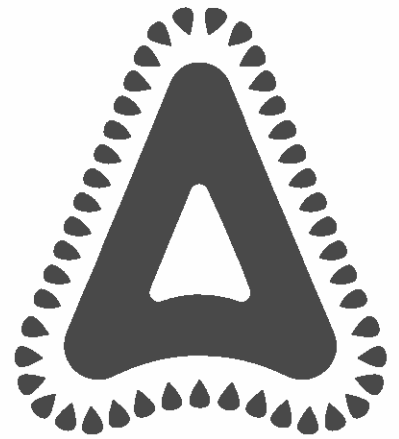
Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Robert Burnell License # AG-L1050275APL	10/14/2022 3:44:00 PM	10/15/2022 12:00:00 AM	BC6	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Dimension 2EW	71000.00 ft ²	62719-542	35.50 flz	Dithopyr	0.50 flz/1000sqft	Backpack Sprayer
Gallery SC	71000.00 ft ²	62719-658	0.00 flz	Isoxaben	0.50 flz/1000sqft	

Customer #	Customer Name	Service Address	Primary Phone	Description:
PDXW-0171285	Dayton School District #8	780 Ferry St, Dayton	(707) 937-5670	
Technician(s):	Approx. Start Date:	Completion date:	Application:	
Robert Burnell License # AG-L1050275APL	10/14/2022 3:44:00 PM	10/15/2022 12:00:00 AM	BC7	

Product	Treatment Area	Reg #	Amount Applied	Active Ingredient	App. Rate	Equipment Used
Cheetah Pro	7100.00 ft ²	228-743	142.00 flz	Glufosinate ammonium	2.00 flz/1000sqft	Backpack Sprayer

QUALI-PRO



BIFENTHRIN I/T 7.9F

Insecticide/Termiticide

For prevention and control of listed termites, carpenter ants and other pests of structures. To control listed pests in and around such areas as homes, commercial and industrial buildings, recreational areas, athletic fields, lawns, ornamentals, and greenhouses. Controls pests in livestock and poultry houses.

For Use as a Termiticide: May only be used by individuals/firms licensed by the State to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product.

ACTIVE INGREDIENTS: % BY WT.

Bifenthrin*.....7.9%

OTHER INGREDIENTS: 92.1%

TOTAL: 100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

Quali-Pro Bifenthrin I/T 7.9F contains 2/3 pound active ingredient per gallon.

Contains bifenthrin, the active ingredient used in Talstar P Professional Insecticide. Quali-Pro Bifenthrin I/T 7.9F is not manufactured or distributed by FMC Corp.

CONTENTS: 1 GALLON



KEEP OUT OF REACH OF CHILDREN CAUTION

For additional precautionary, handling, and use statements, see inside of this booklet.

EPA Reg. No.: 53883-365

EPA Est. No.: 53883-TX-002



ADAMA

Manufactured for:

Control Solutions Inc.

A member of Adama
Consumer and Professional Solutions
5903 Genoa-Red Bluff, Pasadena, TX 77507

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes; then continuing rinsing eye. • Call a poison control center or doctor for treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact SafetyCall® International (866) 897-8050 for emergency medical treatment information.</p>	
<p>Note to Physician - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.</p>	

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use and/or when mixing and loading using a closed spray tank transfer system or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device¹ when working in a non-ventilated space. All pesticide handlers must wear protective eye-wear when working in a non-ventilated space or when applying termiticide by rodding or sub-slab injection.

¹Use one of the following: NIOSH-approved respirator with any R, P or HE filter
or a NIOSH-approved respirator with an organic vapor (OV) cartridge
or canister with any R, P, or HE prefilter.

When treating adjacent to an existing structure, the applicator must check the area to be treated and immediately adjacent areas of the structure for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the cleanup is completed.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

PHYSICAL AND CHEMICAL HAZARDS

Do not apply water-based dilutions of Quali-Pro Bifenthrin I/T 7.9 F to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply a broadcast application to interior surfaces of homes.

Do not apply by air.

Do not apply in nurseries.

Do not apply this product through any kind of irrigation system.

Not for use on sod farm turf, golf course turf, or grass grown for seed.

Do not apply to pets, crops, or sources of electricity.

Firewood is not to be treated.

Use only in well-ventilated areas.

During any application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawl spaces.

Do not allow spray to contact food, foodstuffs, food-contacting surfaces or food utensils or water supplies.

Thoroughly wash dishes and food-handling utensils with soap and water if they become contaminated by application of this product.

Do not treat areas where food is exposed.

During indoor surface applications, do not allow dripping or runoff to occur.

Do not allow contact with treated surfaces by people or pets before spray has dried.

Quali-Pro Bifenthrin I/T 7.9 F will not discolor or otherwise harm surfaces that water alone will not discolor or otherwise harm.

Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.

Do not apply Quali-Pro Bifenthrin I/T 7.9 F in classrooms, libraries, sports venues, or other institutional facilities when they are occupied.

Quali-Pro Bifenthrin I/T 7.9 F may be applied with low-volume application equipment, including Actisol® and Micro-Injector®, for general surface, spot, crack and crevice, and deep harborage treatments.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior landscapes, ornamental gardens or parks, or lawns and grounds.

Do not apply a broadcast application to interior surfaces of homes.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

Additional Application Restrictions for Residential Outdoor Surface and Space Sprays

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Treatment to soil or vegetation around structures;
2. Applications to lawns, turf, and other vegetation;
3. Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as side-walks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications, only.

Distributors must sell in Original Packages Only.

APPLICATION DIRECTIONS

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior landscapes, ornamental gardens or parks, or lawn and grounds. Only use this product on plants being grown for aesthetic or climatic purposes and in interior and exterior sites including gardens, parks, lawns, and grounds, and other ornamental sites. Do not use on vegetation intended for sale or other commercial uses. Do not use on plants grown for seed production or research purposes.

Using this product in and around structures and building construction will prevent and control termite infestations.

To institute a barrier between the wood and the termites in the soil, the chemical emulsion must be effectively dispersed in the soil. It is important to remove unnecessary materials that contain cellulose and wood from around foundation walls, crawl spaces (inside of structure), and porches, and fix damaged plumbing and construction grade in order to deny termite access to moisture.

To use this product effectively, it is important that the service technician be familiar with current control practices including trenching, rodding, sub-slab injection, low-pressure spray applications, coarse fan spraying of soil surfaces, crack and crevice (void) injection, excavated soil treatment and brush and spray applications to infested or susceptible wood. Using these techniques correctly is essential to prevent or control infestations by subterranean termite species of genera *Reticulitermes*, *Zootermopsis*, *Coptotermes* and *Heterotermes*. When determining what procedures to follow, the service technician should consider certain variables. Some of the variables to consider are species biology and behavior, structure design, heating, ventilation, and air conditioning (HVAC) systems, water table, soil type and compaction, grade conditions, and the location and type of domestic water supplies and utilities.

For information concerning the most up-to-date control practices in a given region or locale, consult the local resources for structural pest control, state cooperative extensions or regulatory agencies.

GENERAL APPLICATIONS AND RESTRICTIONS

Quali-Pro Bifenthrin I/T 7.9 F controls a wide range of listed pests on flowers, foliage plants, non-bearing fruit and nut trees, shrubs, and ornamental trees in interior and exterior landscapes including those in hotels, office buildings, shopping malls, etc., and around athletic fields, homes, institutional buildings, parks, and recreational areas. Non-bearing fruit and nut trees are those that will not produce a harvestable crop during the season of application.

Quali-Pro Bifenthrin I/T 7.9 F can be tank mixed with insect growth regulators and other pesticides. Observe all precautions and directions for use for each product. Physical compatibility may vary with different combinations of products, so prepare a small-scale (pint or quart jar) test sample for any combination not tested previously. Use proper proportions in the small-scale test to achieve the correct result.

Unless otherwise noted in the label instructions, use the procedure below for preparation of a new tank mix:

1. Add wettable powders to tank water.
2. Mix well.
3. Add liquids and flowables.
4. Mix well.
5. Add emulsifiable concentrates.
6. Mix well.

Try reversing the order of addition or increasing the amount of water if the combination is not compatible using the above order. **NOTE:** After increasing the amount of water, if the mixture is found to be compatible, it is necessary to recalibrate the sprayer for a higher volume application. Do not allow mixture to stand overnight.

Formula for Determining the Active Ingredient Content of the Finished Emulsion

$$\frac{(7.9)(\text{Fl. Oz. of Quali-Pro Bifenthrin I/T 7.9 F added to tank})}{(\text{Gallons of finished spray mix})(128)} = \% \text{ Active Ingredient in emulsion}$$

SUBTERRANEAN TERMITE CONTROL – GENERAL DIRECTIONS

Important: Observe the following precautions to avoid contamination of public and private water supplies:

- Use anti-backflow equipment and procedures to prevent insecticide from being siphoned into water supplies.
- Do not contaminate cisterns, wells, or other water tanks by treating the soil beneath these structures.
- Do not treat soil where runoff may occur.

- Do not treat soil water saturated or frozen soil.
- Consult local and state specifications for recommended treatment practices in your area.
- If local or state specifications do not exist, consult the Federal Housing Administration (H.U.D.) guidance documents.

Note: For the purposes of this label, crawl spaces are defined as being inside of the structure.

Critical Areas: Points at which the foundation is penetrated or abuts another structure are critical areas. These include bath traps, cracks and expansion joints, utility entry points, and adjacent structures including patios, slab additions, and stairs.

Structures with Wells/Cisterns Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
 - a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - b) Treat the soil at the rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench or 1 gallon per 1.0 cubic feet of soil. See “**Mixing Directions**” section of this label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - c) After the treated soil has absorbed the diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the “**Control of Wood-Infesting Insects in Wood**” section of this label.

Structures with Adjacent Wells/Cisterns and/or Other Water Bodies

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment listed below prior to making an application:

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of the treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

Before these techniques are used close to cisterns, wells, or other bodies of water, seek advice from local, state, or federal agencies for information on treatment practices that are accepted in your area.

Application Rate: Use a 0.06% emulsion for subterranean termites. For other pests on the label, use specific listed rates.

Mixing Directions: Mix the termiticide use dilution in the following manner: Fill tank 1/4 to 1/3 full. Start pump to begin bypass agitation and place end of treating tool in tank to allow circulation through hose. Add appropriate amount of Quali-Pro Bifenthrin I/T 7.9 F. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Quali-Pro Bifenthrin I/T 7.9 F may also be combined into full tanks of water. If combined into full tanks of water, allow sufficient time for agitation and/or recirculation to ensure consistency of the dilution.

To prepare a 0.06% water emulsion ready to use, dilute 3 quarts of Quali-Pro Bifenthrin I/T 7.9 F with 99.25 gallons of water.

Mixing: Using the chart below, determine the volume of Quali-Pro Bifenthrin I/T 7.9 F and water required to produce the desired volume of finished emulsion

Amount of Quali-Pro Bifenthrin I/T 7.9 F (Gallons except where noted)			
Emulsion Concentrate	Amount of Quali-Pro Bifenthrin I/T 7.9 F	Amount of Water	Desired Gallons of Finished Emulsion
0.06%	1 oz.	127 oz.	1
	5 oz.	4.9	5
	10 oz.	9.9	10
	25 oz.	24.8	25
	1.5 qt.	49.6	50
	2.25 qt.	74.4	75
	3 qt.	99.25	100
	4.5 qt.	148.8	150
	6 qt.	198.5	200
0.12% *	2 oz.	126 oz.	1
	10 oz.	4.9	5
	19.5 oz.	9.8	10
	1.5 qt.	24.6	25
	3 qt.	49.2	50
	4.5 qt.	73.8	75
	6 qt.	98.5	100
	9 qt.	147.7	150
	3	197	200

Units of measure:

1 pint = 16 fluid ounces (oz.)

1 quart = 2 pints = 4 cups = 32 fluid ounces (oz.)

* When treating for termites, use this rate only in conjunction with volume adjustments, foam applications, or underground services applications.

Application Volume: To provide maximum control and protection against termite infestation, apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same.

Note: Large reductions of application volume reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with the label-directed rates and a continuous barrier can still be achieved.

The volume of the 0.12% emulsion may be reduced by 1/2 the labeled volume where desirable for pre- and post-construction applications. When the volume is reduced, the hole spacing for sub-slab injection and soil rodding may also need to be adjusted to account for lower volume dispersal of the termiticide in the soil. Consult the following **Volume Adjustment Chart** for details.

VOLUME ADJUSTMENT CHART		
Rate (% emulsion)	0.06%	0.12%
Volume allowed • Horizontal (gallons emulsion/10 ft ²) • Vertical (gallons emulsion/10 linear ft.)	1.0 gallons 4.0 gallons	0.5 gallons 2.0 gallons

After Treatment: All holes in commonly occupied areas into which material has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Foam Applications

Quali-Pro Bifenthrin I/T 7.9 F dilution from 0.06 to 0.12% may be converted to foam with 2X - 40X expansion characteristics and used to control or prevent termite infestations.

Depending on the circumstances, foam applications may be used alone or in combination with liquid emulsion applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawl spaces and other similar voids.

Foam and liquid application must be consistent with volume and active ingredient instructions in order to ensure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the labeled liquid emulsion volume of product must be applied with the remaining percent delivered to appropriate areas using foam application. Refer to label and use instructions of the foam manufacturer and the foaming equipment manufacturer.

Foam applications are generally a good supplement to liquid treatments in difficult areas but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawl Spaces to Prevent or Control Termites

When making applications, Quali-Pro Bifenthrin I/T 7.9 F foam can be used alone or in combination with liquid dilution. Whether applied as a dilution, foam, or some of both, the equivalent of at least 4 gallons of 0.06% dilution (4 ounces of Quali-Pro Bifenthrin I/T 7.9 F concentrate) per 10 linear feet must be applied for a vertical barrier, or at least 1 gallon of 0.06% dilution (1 ounce of Quali-Pro Bifenthrin I/T 7.9 F concentrate) per 10 square feet must be applied for a horizontal barrier. For a foam-only application, apply Quali-Pro Bifenthrin I/T 7.9 F concentrate in sufficient concentration and volume to equal 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% dilution converted to foam and used to cover 10 linear feet is the equivalent of 4 gallons of 0.06% dilution per 10 linear feet.

Sand Barrier Installation and Treatment

As long as termites have access to soil that has not been treated and can avoid soil that has been treated with Quali-Pro Bifenthrin I/T 7.9 F, they can build mud tubes over surfaces that have been treated. Cracks and spaces should be filled with play box or builder's sand and then treated in the same manner as soil. Follow the rates listed on the Quali-Pro Bifenthrin I/T 7.9 F label.

Re-treatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be re-treated in accordance with application techniques described in this product's labeling. The timing and type of these re-treatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual re-treatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

PRE-CONSTRUCTION SUBTERRANEAN TERMITE TREATMENT

Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade. When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced; or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

To produce effective pre-construction subterranean termite control, create vertical and/or horizontal chemically treated zones of protection using 0.06% emulsion of Quali-Pro Bifenthrin I/T 7.9 F. Follow the current edition of the Housing and Urban Development Minimum Property Standards to assure that F.H.A. termite-proofing requirements are met.

Horizontal Barriers

Establish a horizontal chemical barrier wherever treated soil will be covered by a slab such as basement floors, carports, entrance platforms, footing trenches, and slab floors.

Apply 1 gallon of 0.06% dilution per 10 square feet, or use 1 fluid ounce of Quali-Pro Bifenthrin I/T 7.9 F per 10 square feet in sufficient water (no less than 1/2 gallon or more than 2 gallons) to provide a uniform treated barrier for the area being treated.

If the fill is coarse aggregate such as washed gravel, a sufficient volume of dilution must be applied to allow it to reach the soil beneath the coarse fill.

Make applications with a low-pressure spray (less than 50 psi) using a coarse spray nozzle. If foundation walls have not been installed around the treated soil and the slab will not be poured the same day as treatment, the treated soil must be covered with a waterproof barrier. Polyethylene sheeting may be used for this purpose.

Vertical Barriers

Establish vertical barriers in critical areas such as along the inside of foundation walls, plumbing, bath traps, utility services and other features that will penetrate the slab.

Using a 0.06% dilution, apply 4 gallons of dilution per 10 linear feet per foot of depth or 4 fluid ounces of Quali-Pro Bifenthrin I/T 7.9 F per 10 linear feet per foot of depth from grade level to the top of the footing in sufficient water to provide a uniform treated barrier. Use not less than 2 gallons to not more than 8 gallons of water per 10 linear feet.

When trenching and rodding into the trench, or trenching, take care to ensure that the dilution reaches the top of the footing. Space the rod holes so that a continuous treated barrier is created, but not exceeding 12 inches apart. Avoid washing out the soil around the footing. Trenches should be about 6 inches wide and 6 inches deep. Mix the chemical dilution with the soil as it is being replaced in the trench. Inside vertical barriers may not be required for monolithic slabs.

When treating hollow block voids, use 2 gallons of dilution per 10 linear feet to assure that the dilution reaches the top of the footing.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

POST-CONSTRUCTION SUBTERRANEAN TERMITE TREATMENT

For post-construction treatment, use a 0.06% dilution. Post-construction treatments shall be made by sub-slab injection, trenching and rodding into the trench, or trenching using low-pressure spray not exceeding 25 psi at the nozzle. Proper precautions should be taken to avoid soil washout around the footing.

Locate, identify, and mark wells, electrical conduits, water and sewer lines, and radiant heat pipes prior to application of Quali-Pro Bifenthrin I/T 7.9 F. Do not puncture or inject Quali-Pro Bifenthrin I/T 7.9 F into such structures.

Basements

Treatment must be made by trenching and rodding into the trench or trenching at the rate of 4 gallons of dilution per 10 linear feet per foot of depth wherever the footing from grade to the bottom of the foundation is greater than 1 foot of depth. When the footer is greater than four feet below grade, the applicator may trench and rod into the trench or trench beside foundation walls at the rate designated for four feet of depth. Space rod holes to create a continuous insecticidal barrier, but in no case more than 12 inches apart. Depending on the type of soil, degree of compaction, and location of termite activity, the actual depth of treatment will differ. However, a

structure should never be treated below the footer. Sub-slab injection may be needed beside the inside of foundation walls, around conduits, piers, and pipes, beside both sides of interior footing-supported walls, and beside cracks and partition walls.

Crawl Spaces – Accessible

For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundation and around all piers and pipes. Where physical obstructions such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced so as to achieve a continuous termiticide barrier, but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not to be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and prevent termiticide from running off. The emulsion must be mixed with the soil as it is replaced in the trench.
4. When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Crawl Spaces – Inaccessible

For inaccessible interior areas such as areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access, excavate if possible and treat according to the instruction for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods:

1. To establish a horizontal barrier, apply to the soil surface 1 gallon of emulsion per 10 square feet overall using a nozzle pressure of less than 25 psi and a coarse application nozzle (e.g., Delavan Type RD Rain-drop, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet® or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of emulsion per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals, so check State regulations which may apply.

When treating plenums and crawl spaces, turn off the air circulation systems of the structure until application has been completed and all termiticide has been absorbed by the soil.

Excavation Technique: When treating in troublesome areas (e.g., beside fieldstone or rubble walls, beside faulty foundation walls, and around pipes and utility lines leading downward from the structure to a well or pond), apply using the following technique:

- a. Prepare a trench placing the removed soil onto heavy-weight plastic sheeting or similar water-impermeable material.

- b. Treat the soil with 4 gallons of 0.06% dilution per 10 linear feet per foot of depth of the trench. Completely mix the dilution into the soil exercising care to avoid liquid running off the sheeting.
- c. Place the treated soil back into the trench after it has absorbed the dilution.

Attention: Wear NIOSH-approved unvented goggles and a respirator when applying Quali-Pro Bifenthrin I/T 7.9 F in a confined area.

Foundations

For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Masonry Voids

Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at a rate of 2 gallons of emulsion per 10 linear feet of footing using a nozzle pressure of less than 25 psi. When using this treatment, access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the cleanup is completed.

NOTE: When treating behind veneer structures (walls, etc.), take proper care to not drill beyond the veneer. If concrete blocks exist behind the veneer, both can be drilled and treated simultaneously.

Quali-Pro Bifenthrin I/T 7.9 F may not be used in voids insulated with rigid foam insulation.

Slabs

Create vertical barriers by trenching and rodding into the trench or trenching outside at a rate of 4 gallons of dilution per 10 linear feet per foot of depth and by sub-slab injection within the structure. Ensure an even distribution of chemical. Applications must not be made below the bottom of the footing.

Apply beside the outside of the foundation and under the slab on the inside of foundation walls where needed. Treatment of slabs may also be necessary under and beside both sides of any interior footing-supported walls, in all cracks and expansion joints, and beside one side of interior partitions. By long-rodding or grid pattern injection vertically through the slab, horizontal barriers may be created where necessary.

- a. To permit the creation of an uninterrupted insecticidal barrier, drill holes in the foundation and/or slab.
- b. For foundations that are less than or equal to 1 foot, dig a narrow trench about 6 inches wide beside the outside of the foundation walls. Do not dig beneath the bottom of the footing. As the soil is placed back into the trench, apply 4 gallons of 0.06% dilution per 10 linear feet per foot of depth to the trench and soil.

c. Follow the rates stated above for basements for foundations that are deeper than 1 foot.

d. A 0.06% dilution may be used to treat soil that is exposed and wood in bath traps.

Annual re-treatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

FOOD HANDLING ESTABLISHMENTS

If used as a general spot, surface, or crack and crevice treatment, Quali-Pro Bifenthrin I/T 7.9 F may be applied in both food/feed and nonfood areas of food/feed-handling establishments.

Food/feed-handling establishments are any place other than private residences where exposed food/feed is held, processed, prepared or served, including areas for receiving, storing, packing (bottling, boxing, canning, wrapping), preparing, enclosed processing systems (dairies, edible oils, mills, syrups) of food and edible waste storage. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Nonfood areas in which applications are allowed include entries and vestibules, floor drains (to sewers), garages, garbage rooms, lavatories, locker rooms, machine rooms, mop closets, offices, and storage (after canning or bottling).

Listed below are some of the use sites that are allowed:

- aircraft (do not use in aircraft cabins)
- apartment buildings
- bakeries
- bottling facilities
- breweries
- buses
- cafeterias
- candy plants
- canneries
- dairy product processing plants
- food manufacturing plants
- food processing plants
- food service establishments
- granaries
- grain mills
- hospitals
- hotels
- industrial buildings
- laboratories
- meat/poultry/egg processing plants
- mobile/motor homes
- nursing homes
- offices
- railcars
- restaurants
- schools
- ships
- trailers
- trucks
- vessels
- warehouses
- wineries

General Surface Application: Do not use this application method in food/feed-handling establishments when the facility is in operation or foods/feeds are exposed. During treatment, remove or cover all food-processing and/or handling equipment and do not apply directly to food products. All equipment, benches, shelving and other surfaces in food-processing plants, bakeries, cafeterias and other facilities which food will contact must be washed after treatment. Clean food-handling equipment or processing equipment and rinse completely with fresh clean water.

Spot, Crack and Crevice Application: These types of treatments can be done when the facility is operating, but food should be covered or removed from the treatment area. Do not apply directly to food.

Foam Applications: Converting Quali-Pro Bifenthrin I/T 7.9 F to foam will allow it to be used to treat structural voids. To produce a 0.02% to 0.06% foam concentration, dilute 0.33 to 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and add the manufacturer's recommended amount of foaming agent. Before application, make sure that the foaming agent is compatible with Quali-Pro Bifenthrin I/T 7.9 F.

INDOOR USES

In the home, all food-processing surfaces and utensils should be covered during treatment or thoroughly washed before reuse. Exposed food should be covered or removed. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

Quali-Pro Bifenthrin I/T 7.9 F may be used to control ants, grocer beetles, boxelder bugs, carpet beetles, centipedes, clothes moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, ticks, and wasps.

In structures and buildings and on modes of transportation, use a 0.02% to 0.06% suspension (0.33 to 1 fl. oz. per gallon of water) using a crack and crevice, pinstream, spot, coarse, low-pressure spray (25 psi or less) or with a paint brush.

Indoor Treatments: Apply where pests hide. These areas include but are not limited to baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, and drawers. Treat with a low-pressure, coarse, crack and crevice or spot spray. Pay close attention to cracks and crevices. Not for use as a space spray.

Mixing Directions: See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section.

To make a dilution for brush or spray treatments:

- Dilute Quali-Pro Bifenthrin I/T 7.9 F with water.
- Fill sprayer with the required amount of water.
- Add Quali-Pro Bifenthrin I/T 7.9 F.
- To ensure proper mixing, close sprayer and shake before use.
- Only mix the amount of solution that is necessary for treatment.

In order to achieve and/or maintain control in times of high pest pressure, re-treatment may be needed.

Repeat application should only take place if there are signs of renewed insect activity and must not exceed one application per 7 days.

Ants: Apply to any ant trails, around doors and windows, and other places that ants frequent.

Bees and Wasps: Apply to nests in late evening when these pests are at rest. Spray nests, entrances to nests and surrounding areas thoroughly. Contact as many insects as possible. Re-treat if signs of renewed activity exist.

Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs: Treat near doors and windows, storage areas, baseboards and other sites where these pests may be found.

Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders, and Ticks: Use a coarse low-pressure, crack and crevice or spot spray paying close attention to cracks and crevices. Treat where pests hide. These areas include but are not limited to attics and eaves, baseboards, closets, corners, storage areas, around water pipes, doors and windows, behind and under cabinets, furnaces, refrigerators, sinks, stoves, and the underside of shelves and drawers.

LIVESTOCK AND POULTRY BUILDINGS AND KENNELS

Quali-Pro Bifenthrin I/T 7.9 F may be used as a surface spray (including directed spray) and crack and crevice application for control of flies, fleas, beetles, bed bugs, mites and ticks. Usual cleaning of the structure must be completed along with the Quali-Pro Bifenthrin I/T 7.9 F application for effective control.

For the areas of the structure that are not in use, make application to floors, walls, pipes, windows, and doors where pests may be present at a rate of 0.33 to 1 oz per 1000 sq ft. Cover feed and water units prior to application to prevent contamination. Outside applications to sides and foundations are also helpful against interior infestation.

For areas of the structure that are in use, apply inside to cracks and crevices only at a rate of 0.33 to 1 oz per 1000 sq. feet. Outside applications to sides and foundation is also helpful against interior infestation. Do not apply directly to animals.

Quali-Pro Bifenthrin I/T 7.9 F will control adult flies by spraying in and around the animal structure. The application should be made to any where flies will sit including windows, inside and outside walls, fences, vegetation, and on manure in areas that cannot be cleaned.

Applications in poultry houses should be made at a rate of 0.33 to 1 fl oz per 1000 sq feet to floors, walls, poles, and cages (if used), cracks and crevices. In order to prevent unobtrusive pests, maintain a year-round treatment program. Applications should be made after each batch or cleaning, but not more than once every 8 weeks. Outside applications to sides (2-3 feet high), foundation, and ground (6-10 feet out) is also helpful against interior infestation.

Quali-Pro Bifenthrin I/T 7.9 F should be applied at a rate of 0.33 to 1 fl oz per 1000 sq feet for control of beetles in structures containing birds (including broilers for breeding) grown on refuse matter. Make application after animals are removed and during harrowing. When structure is cleaned out, apply to bare dirt or cement, sides, and exterior border, and treat new litter that is put down. Reapply after each batch of animals.

Use Quali-Pro Bifenthrin I/T 7.9 F at a rate of 0.33 to 1 fl oz per 1000 sq ft to treat the outside edge of the manure when used in caged-layer houses to control beetles. Do not apply directly to accrued waste. An application to sides, ceiling, poles, and exterior part of structure should be made. Reapply between each batch of animals.

RESTRICTIONS

- Do not apply to milk rooms.
- Do not apply as a general surface spray when animals are present in structure. When animals are present, only cracks and crevices may be treated.
- Applications must be dry before allowing animals back into structure.
- Spray must be dry before applying a disinfectant.
- Cover feed and water units when making application so not to contaminate.

LAWNS

Use Quali-Pro Bifenthrin I/T 7.9 F as a broadcast treatment. To accomplish uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1000 square feet.

To ensure control of sub-surface pests including mole crickets using low-volume treatments, (i.e., less than 2 gallons per 1000 square feet), immediately follow the treatment with irrigation of the treated area with at least 0.25 inches of water.

Lawn Application Rates

Under typical conditions, the application rates shown in the table below will provide control of the listed pests. Quali-Pro Bifenthrin I/T 7.9 F may, however, be applied at up to 1 fl. oz. per 1000 square feet at the discretion of the applicator. Maximum residual control requires the higher treatment rates.

Pest	Application Rate Quali-Pro Bifenthrin I/T 7.9 F
Armyworms ¹ Cutworms ¹ Sod Webworm ¹	0.18 - 0.25 fluid oz. per 1000 sq. ft.
Annual Bluegrass Weevil (Hyperodes)(Adult) ² Banks Grass Mite ⁶ Billbugs (Adult) ³ Black Turfgrass Ataenius Adult ⁴ Centipedes Chinch Bugs ⁵ Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites ⁶ Pillbugs Sowbugs	0.25 - 0.5 fluid oz. per 1000 sq. ft.
Ants Fleas (Larvae) ⁷ Imported Fire Ants ⁸ Japanese Beetle (Adult) Mole Cricket (Adult) ⁹ Mole Cricket (Nymph) ¹⁰ Ticks ¹¹	0.5 - 1.0 fluid oz. per 1000 sq. ft.

In New York State, this product may not be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

In New York State, do make a single repeat application of Quali-Pro Bifenthrin I/T 7.9 F if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Notes

- ¹ **Armyworms, Cutworms, and Sod Webworms:** Postpone irrigation or mowing for 24 hours after application to obtain the best possible control. Higher treatment rates (up to 1 fluid oz. per 1000 square feet) may be necessary if high pest pressure exists and if the grass is maintained taller than 1 inch.
- ² **Annual Bluegrass Weevil (*Hyperodes*) adults:** Treatment of this species should be timed as they travel into grass areas and away from their overwintering sites. Travel usually begins when *Forsythia* is in full bloom and ends when *Cornus florida* (flowering dogwood) is in full bloom. For additional detailed information regarding treatment timing, check with your State Cooperative Extension Service.
- ³ **Billbug adults:** Treatment of adult billbugs should be made when they are first noticed in April and May. To optimize treatment timing, degree day models have been developed. For detailed information particular to your region, check with your State Cooperative Extension Service. Spring treatments for billbug adults will also offer control of over-wintered chinch bugs in temperate climates.
- ⁴ **Black Turfgrass Ataenius adults:** In order to control the 1st and 2nd generation of black turfgrass ataenius adults respectively, treatments should take place in May and July. Time the May treatment to match with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhoutte*) and horse chestnut (*Aesculus hippocastanum*). Time the July treatment to match with the blooming Rose of Sharon (*Hibiscus syriacus*).
- ⁵ **Chinch Bugs:** Mostly found in the thatch layer, chinch bugs infest the base of grass plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the grass prior to treatment may be necessary. If grass is being kept at a long mowing height or if the thatch layer is excessive, use higher volume treatments. It may be necessary to use higher application rates (up to 1 fluid oz. per 1000 square feet) to control populations made up of both adults and nymphs in mid-summer.
- ⁶ **Mites:** Apply Quali-Pro Bifenthrin I/T 7.9 F in combination with a labeled rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed 5 to 7 days after the first to ensure optimal control.
- ⁷ **Flea larvae:** Immature fleas mature in shaded areas accessible to pets or other animals. When treating these areas, use a higher volume treatment so that the insecticide penetrates into the soil. NOTE: If adult fleas on lawn areas are being controlled by applying Quali-Pro Bifenthrin I/T 7.9 F at a rate of 0.25 fl. oz. per 1000 square feet, then the rate of larval application can be accomplished by two- to four-fold increase in spray volume.
- ⁸ **Imported Fire Ants:** The best control will be achieved by using broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high-volume treatments or to irrigate prior to application if the soil is dry. Apply 1 fl. oz. per 1000 square feet when using broadcast treatments. For mound drenches, dilute 1 teaspoon of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and use 1 to 2 gallons of finished dilution using sufficient force to penetrate the top and allow dilution to flood ant channels. Treat a four-foot diameter around each ant mound. Application should be made in late evening or early morning when it is cooler (65° - 80° when insects are most active). NOTE: A spray rig calibrated to apply 1 fluid oz. per 1000 square feet of Quali-Pro Bifenthrin I/T 7.9 F in 5 gallons per 1000 square feet contains the equivalent dilution (1 teaspoon per gallon) required for fire ant mound drenches in the spray tank.

- ⁹ **Mole Cricket adults:** Since the preferred grass areas are subject to constant invasion in early spring by the active adult stage, it can be difficult to maintain control of adult mole crickets. It is ideal to treat the areas as late in the day as possible and water immediately after application with up to 0.5 inches of water. To ensure maximum contact when soil is dry, it is necessary to irrigate prior to treatment to bring the adult mole crickets closer to the soil surface. To obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets should be treated at immediately prior to peak hatch stage. (See note 10 below).
- ¹⁰ **Mole Cricket nymphs:** Treat grass areas that are preferred by adult mole crickets in the spring just before peak egg hatch. Young nymphs are more vulnerable to insecticidal treatment at this stage because they are close to the soil surface where the insecticide is most concentrated and thereby providing the most efficient control. For larger more damaging nymphal stages later in the year, it may be necessary to use higher application rates more frequently. It is ideal to treat the areas as late in the day as possible and water immediately after application with up to 0.5 inches of water. To ensure maximum contact when soil is dry, it is necessary to irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.
- ¹¹ **Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever):** Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying to areas with heavy leaf litter or dense ground cover, use higher spray volumes. To attain and/or sustain control in times of high pest pressure, re-treatments may be necessary; re-treat only if signs of continued or renewed tick activity are present. Repeat treatments must not be made more often than once per 7 days. **Deer ticks (*Ixodes sp.*)** have a four-stage life cycle spanning 2 years. Treat in late fall and/or early spring to both larval and nymphal stages present in leaf litter and the soil and adults living in the grass and low-lying vegetation above ground. **American dog ticks** invade suburban settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treatments should take place, as needed, from mid-spring to early fall.

Quali-Pro Bifenthrin I/T 7.9 F Lawn Dilution Chart

Application Volume:	Application Rate:	Fluid Ounces* of Quali-Pro Bifenthrin I/T 7.9 F Diluted to these Volumes of Finished Spray			
Gallons Per 1000 Sq. Ft.	Fluid Ounces per 1000 Sq. Ft.	1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.18	0.18	0.90	1.8	18.0
1.0	0.25	0.25	1.25	2.5	25.0
1.0	0.5	0.5	2.5	5.0	50.0
1.0	1.0	1.0	5.0	10.0	100.0
2.0	0.18	-	0.45	0.90	9.0
2.0	0.25	0.13	0.63	1.25	12.5
2.0	0.5	0.25	1.25	2.5	25.0
2.0	1.0	0.5	2.5	5.0	50.0
3.0	0.18	-	0.30	0.60	6.0
3.0	0.25	-	0.42	0.83	8.3
3.0	0.5	0.17	0.83	1.67	16.7
3.0	1.0	0.33	1.67	3.33	33.3
4.0	0.18	-	0.23	0.45	4.5
4.0	0.25	-	0.31	0.63	6.3
4.0	0.5	0.13	0.63	1.25	12.5
4.0	1.0	0.25	1.25	2.5	25.0
5.0	0.18	-	0.18	0.36	3.6
5.0	0.25	-	0.25	0.5	5.0
5.0	0.5	0.1	0.5	1.0	10.0
5.0	1.0	0.2	1.0	2.0	20.0
10.0	0.18	-	-	0.18	1.8
10.0	0.25	-	0.13	0.25	2.5
10.0	0.5	-	0.25	0.5	5.0
10.0	1.0	0.1	0.5	1.0	10.0

*To convert to miliLiters, multiply by 29.57

1 fluid ounce = 29.57 mL = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Quali-Pro Bifenthrin I/T 7.9 F.

ORNAMENTALS AND TREES

Treat with 0.125 to 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per 1000 square feet or 5.4 to 43.5 fl. oz. per 1 acre for ornamental applications. As long as the highest label rate (1.0 fl. oz. per 1000 square feet or 43.5 fl. oz. per 1 acre) is not exceeded, Quali-Pro Bifenthrin I/T 7.9 F can be diluted and used in different volumes of water. If diluted with water or other carriers, low-volume equipment can be used for application as long as the highest label rate (1.0 fl. oz. per 1000 square feet or 43.5 fl. oz. per 1 acre) is not exceeded.

Treat as a full-coverage foliar spray using the stated application rate. If pest pressure and density of foliage increases, repeat treatments using higher rates may be needed to reach the desired control. Repeat treatments should not be made more often than once per 7 days.

Before application to entire planting, test treat a small number of plants and watch for signs of sensitivity. Some plant species may be sensitive to the final spray solution.

To avoid or delay pest resistance, it is recommended to use an alternate class of pesticide in any application program.

GREENHOUSES AND INTERIOR PLANTSCAPES

Quali-Pro Bifenthrin I/T 7.9 F is effective for use on a broad range of insects and mites on trees, shrubs, leafy plants, nonbearing fruit and nut trees, and flowers grown in greenhouses. It may also be used in interior plants such as hotels, shopping malls, office buildings and other similar areas.

Quali-Pro Bifenthrin I/T 7.9 F may be used by itself or in a tank mix with other products such as insect growth regulators.

Calculating Dilution Rates using the Ornamental, Greenhouse, and Interior Plantscape Application Rates Table and the Quali-Pro Bifenthrin I/T 7.9 F Ornamental, Greenhouse, and Interior Plantscape Dilution Chart:

To determine the proper dilution of Quali-Pro Bifenthrin I/T 7.9 F that is required to control specific pests, follow the steps below:

1. Determine the target pest that is the least susceptible (i.e., the pest that requires the highest application rate for effective control).
2. Choose a treatment rate in terms of fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F.
3. Determine the dilution volume necessary for the treatment.
4. Use the proper amount of Quali-Pro Bifenthrin I/T 7.9 F that must be mixed in your preferred volume of water as shown in the Ornamental Dilution Chart.

As an example, if you were treating for cutworms, the Ornamental Application Rates table shows that 0.125 – 0.25 fluid ounces of Quali-Pro Bifenthrin I/T 7.9 F should be applied per 1000 square feet. Select the application rate of 0.25 fluid oz. per 1000 square feet due to evidence of high pest pressure. The application volume is determined to be 300 gallons per acre which is equivalent to 6.9 gallons per 1000 square feet. The corresponding value in the Ornamental Dilution Chart shows that 0.36 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F should be mixed with 10 gallons of water.

Ornamental, Greenhouse, and Interior Plantscape Application Rates

Under typical conditions, the application rates in the table below will offer optimal control of the listed pests, but Quali-Pro Bifenthrin I/T 7.9 F can be used at up to 1 fl. oz. per 1000 square feet (43.5 fl. oz. per 1 acre) at the discretion of the applicator. When maximum residual control is preferred, higher treatment rates are necessary.

Quali-Pro Bifenthrin I/T 7.9 F Ornamental, Greenhouse, and Interior Plantscape Application Rate Table

Pest	Application Rate Quali-Pro Bifenthrin I/T 7.9 F	
	Fluid Ounces per 1000 square ft.	Fluid Ounces per 1 acre
Bagworms ¹ Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25	5.4 - 10.8
Adelgids [†] Ants Aphids Bees Beet Armyworm Beetles ^{2,†} Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) ¹³ Centipedes Cicadas [†] Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†] Leafhoppers Leafrollers	0.25 - 0.5	10.8 - 21.7

(continued)

Quali-Pro Bifenthrin I/T 7.9 F Ornamental, Greenhouse, and Interior Plantscape Application Rate Table (*continued*)

Pest	Application Rate Quali-Pro Bifenthrin I/T 7.9 F	
	Fluid Ounces per 1000 square ft.	Fluid Ounces per 1 acre
Mealybugs Millipedes Mites Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) ² Plant Bugs (Including <i>Lygus</i> spp.) Psyllids [†] San Jose Scales (Crawlers) ² Scorpions Sowbugs Spider Mites ³ Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers ² Wasps Weevils ² Whiteflies	0.25 - 0.5	10.8 - 21.7
Imported Fire Ants ^{**} Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites ¹⁴	0.5 - 1.0	21.7 - 43.5

¹ **Bagworms:** For optimum control, treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.

² **Beetles, Scale Crawlers, Twig Borers, and Weevils:** Apply to plant foliage; also treat trunks, stems, and twigs.

³ **Spider Mites:** Apply during spring and mid-summer for most effective control of two-spotted spider mites. During mid- to late-summer, it may be necessary to make more frequent treatments, possibly at higher rates for suitable control. Control may be enhanced by adding a surfactant or horticultural oil or by combining Quali-Pro Bifenthrin I/T 7.9 F with other products registered to control mites. Applications of Quali-Pro Bifenthrin I/T 7.9 F may be alternated with chemicals offering other modes of action that delay or prevent control resistance by two-spotted spider mites. For recommendations on resistance management in your region, check with your local Cooperative Extension Service.

**For foraging ants.

† Not for use in California.

RESTRICTIONS FOR CALIFORNIA

- Greenhouse applicators must wear: Full-body, chemical-resistant protective suit (such as barrier laminate, butyl rubber, polyvinyl chloride, or equivalent).
- Reapplication Interval: Reapplications to greenhouses must be at intervals of 30 days or longer.
- Greenhouse Harvesters must wear: Regular-length gloves plus a long-sleeved shirt or elbow-length (gauntlet-type) gloves during the 30 days following application.

Quali-Pro Bifenthrin I/T 7.9 F Ornamental, Greenhouse, and Interior Plantscape Dilution Chart

Application Volume: Gallons Per		Application Rate: Fl. Oz. per	Fluid Ounces* of Quali-Pro Bifenthrin I/T 7.9 F Diluted to these Volumes of Finished Spray			
1000 sq. ft.	Acre	1000 sq. ft.	1 gallon	5 gallons	10 gallons	100 gallons
2.3	100	0.125	-	0.27	0.54	5.4
2.3	100	0.25	0.11	0.54	1.08	10.8
2.3	100	0.5	0.22	1.09	2.17	21.7
2.3	100	1.0	0.44	2.17	4.35	43.5
4.6	200	0.125	-	0.14	0.27	2.7
4.6	200	0.25	-	0.27	0.54	5.4
4.6	200	0.5	0.11	0.54	1.09	10.9
4.6	200	1.0	0.22	1.09	2.17	21.7
6.9	300	0.125	-	-	0.18	1.8
6.9	300	0.25	-	0.18	0.36	3.6
6.9	300	0.5	-	0.36	0.72	7.2
6.9	300	1.0	0.15	0.72	1.45	14.5

*To convert to milliliters, multiply by 29.57

300 gallons per acre is a typical application volume for landscape ornamental applications.

1 fluid ounce = 29.57 mL = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Quali-Pro Bifenthrin I/T 7.9 F.

Pest Control on Outside Surfaces and Around Buildings

Quali-Pro Bifenthrin I/T 7.9 F may be used to control Ants including Carpenter Ants and Fire Ants, Armyworms, Bees, Beetles[†], Biting Flies, Boxelder Bugs, Centipedes, Chiggers, Chinch Bugs, Clover Mites, Crickets, Cutworms, Dichondra Flea Beetles, Earwigs, Elm Leaf Beetles, Firebrats, Fleas, Flies, Gnats, Grasshoppers, Hornets, Japanese Beetles[†], Midges, Millipedes, Mosquitoes, Moths, Roaches (including Cockroaches), Scorpions, Silverfish, Sod Webworms, Sowbugs (Pillbugs), Spider Mites, Spiders (including Black Widow Spiders), Springtails, Ticks (including Brown Dog Ticks), and Wasps.

[†] Not for use in California.

Use a 0.02 to 0.06% dilution to spray the outside surfaces of buildings such as private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures. Sites of treatment include but are not limited to exterior siding, foundations, porches, window frames, eaves, patios, garages, garbage areas, lawn areas, trunks of trees and shrubs and other areas where pests may be found. Use a spray volume of up to 10 gallons of emulsion per 1000 square feet. Use higher dilution volumes if vegetation or landscape materials are dense.

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 3 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) they do not drain into a sewer, storm drain, or curbside gutter. (e.g., not to sections that abut driveways or sidewalks that drain into streets).

Follow "Additional Application Restrictions for Residential Outdoor Surface and Space Sprays" under **DIRECTIONS FOR USE**.

Mixing Directions

Suspension	Quali-Pro Bifenthrin I/T 7.9 F per gallon of water	Remarks
0.02%	0.33 fl. oz.	<ul style="list-style-type: none">• Do not use household utensils to measure Quali-Pro Bifenthrin I/T 7.9 F.• Use higher treatment rates for quicker knockdown or longer residual control.• High pest pressure may require subsequent applications.• Repeat application only if there is evidence of renewed insect activity and not more than once per 7 days.
0.06%	1.0 fl. oz.	

Perimeter Treatment: Treat a band of soil and vegetation 6 to 10 feet wide around and next to the structure and the foundation of the structure to a height of 2 to 3 feet. Use 0.33 to 1.0 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F per 1000 square feet in enough water to provide sufficient coverage (refer to Perimeter Application Dilution Chart).

For sections of foundation that abut non-porous horizontal surfaces, the treated areas must be protected from rainfall and spray from sprinklers or they do not drain into a sewer, storm drain, or curbside gutter (e.g., not to sections that abut driveways or sidewalks that drain into streets).

Quali-Pro Bifenthrin I/T 7.9 F Perimeter Application Dilution Chart

Application Volume: Gallons Per	Application Rate: Fluid Ounces per	Fluid Ounces* of Quali-Pro Bifenthrin I/T 7.9 F Diluted to these Volumes of Finished Spray			
1000 Sq. Ft.	1000 Sq. Ft.	1 gallon	5 gallons	10 gallons	100 gallons
1	0.33	0.33	1.67	3.33	33.3
1	0.5	0.5	2.5	5.0	50.0
1	0.67	0.67	3.33	6.67	66.7
1	0.75	0.75	3.75	7.5	75.0
1	1.0	1.0	5.0	10.0	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.5	0.25	1.25	2.5	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.0	0.5	2.5	5.0	50.0
3	0.33	0.11	0.55	1.10	11.0
3	0.5	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.5	25.0
3	1.0	0.33	1.67	3.33	33.3
4	0.33	-	0.41	0.83	8.3
4	0.5	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.0	0.25	1.25	2.5	25.0
5	0.33	-	0.33	0.67	6.7
5	0.5	0.1	0.5	1.0	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.5	15.0
5	1.0	0.2	1.0	2.0	20.0
10	0.33	-	0.17	0.33	3.3
10	0.5	-	0.25	0.5	5.0
10	0.67	-	0.33	0.67	6.7
10	0.75	-	0.38	0.75	7.5
10	1.0	0.1	0.5	1.0	10.0

*To convert to milliliters, multiply by 29.57

1 fluid oz. = 29.57 mL = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Quali-Pro Bifenthrin I/T 7.9 F.

Ant and Fire Ant Mound Drench Using 0.06% Dilution: Use 1-2 gallons of dilution for each mound area. Sprinkle the mound until wet and apply to a 4 ft. diameter circle around the mound. For mounds larger than 12 inches, use a larger volume. Application should be made in late evening or early morning when it is cooler (65° - 80°) when insects are most active.

Mosquito Control: To control mosquitoes around buildings, landscapes, and lawns, dilute 0.33 to 1.0 fl. oz. per gallon of water and use one gallon of dilution per 1000 square feet as a general spray. Quali-Pro Bifenthrin I/T 7.9 F can be mixed at lower concentrations and applied at higher volumes to ensure application of the proper amount of product to a given area (refer to the Ornamental or Perimeter Application Charts).

Other Pest Control Applications

Controlling Ants Indoors and Outdoors

Pest Ants Indoors: Apply to ant nests for best results. Apply a dilution of 0.5 to 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water at the rate of one gallon of dilution per 1000 square feet to places where ants have been seen or are believed to forage as a general surface, spot or crack and crevice treatment. Some of these areas include baseboards, cracks and crevices, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, and in corners. Pay close attention when treating entry points into the home or around windows and doors. When combining liquid Quali-Pro Bifenthrin I/T 7.9 F treatments with bait treatments, use Quali-Pro Bifenthrin I/T 7.9 F as instructed above and apply baits in those areas where Quali-Pro Bifenthrin I/T 7.9 F has not been applied.

Pest Ants Outdoors: Apply to ant nests for best results. Treat ant trails, around windows and doors, and other places where ants have been seen or are likely to forage. As stated in the "Pest Control on Outside Surfaces and Around Buildings" section, treat using a low- or high-volume perimeter treatment depending on density of vegetation and landscaping materials. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for ant control. The following procedures must be followed to help achieve maximum control of the pest:

1. Dilute 0.5 to 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and apply at a rate of up to 10 gallons of dilution per 1000 square feet for maximum residual control.
2. Vegetation and porous surfaces should be treated with high-volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F per 1000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low-volume applications using 0.5 to 1.0 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and applying this dilution at the rate of one gallon per 1000 square feet.

Carpenter Ants Indoors: Treat areas where carpenter ants are seen or are predicted to forage such as baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices, and in corners by diluting 0.5 to 1.0 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and applying at the rate of one gallon of dilution per 1000 square feet as a general surface, crack and crevice, spot and/or foam application. Spray or foam into cracks and crevices, or drill holes and spray, mist, or foam into voids and galleries where carpenter ants or their nests are present. When combining liquid Quali-Pro Bifenthrin I/T 7.9 F treatments with bait treatments, use Quali-Pro Bifenthrin I/T 7.9 F as instructed above and apply baits in those areas where Quali-Pro Bifenthrin I/T 7.9 F has not been applied.

Carpenter Ants Outdoors: Treat carpenter ant nests for best results. Treat areas where carpenter ants are seen or are believed to forage such as ant trails and around doors and windows. As stated in the "Pest Control on Outside Surfaces and Around Buildings" section, treat using a low- or high-volume perimeter treatment. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for carpenter ant control. The following procedures must be followed to help achieve maximum control of the pest:

1. Dilute 0.5 to 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and apply at a rate of up to 10 gallons of dilution per 1000 square feet to obtain residual control.
2. Vegetation and porous surfaces should be treated with high-volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F per 1000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low-volume applications using 0.5 to 1.0 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and applying this dilution at the rate of one gallon per 1000 square feet.
4. Use 0.5 to 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water on tree trunks with carpenter ant trails or evidence of foraging. Apply to the bark, completely wetting it from the bottom of the tree to the highest possible point on the trunk.

To control carpenter ants inside deck materials, fencing, trees, utility poles or other structural elements, drill to find the inside infested cavity and inject or foam a 0.06% dilution (1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water) into the cavity with adequate volume and a proper treatment tool with a splash-back guard. Where there are ants tunneling below the surfaces, dilute 0.5 to 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and apply as a drench or foam at intervals of 8 to 12 inches. A uniform barrier should be established where there are ants tunneling below surfaces such as at the edges of walls, driveways or other hard surfaces.

Use a sprinkling can or a hose-end sprayer to distribute a coarse drenching spray; apply a 0.06% dilution to stored lumber and wood piles. This wood may be used for lumber or may be burned after 30 days. Do not use this method of application in structures.

Diluting 1.0 fluid oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and applying to the soil below where the firewood will be stacked at the rate of one gallon of dilution per 8 square feet will protect the wood from carpenter ants.

DO NOT treat firewood with this product.

Controlling Termites (Above Ground Only)

The treatment methods that are expressed below are intended to kill termite workers or winged reproductives present at the time of application. These methods should supplement, not substitute for, mechanical alteration, soil treatment, or foundation treatment.

Controlling winged reproductive termites and exposed workers in localized areas may be accomplished by diluting 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and applying the dilution at the rate of one gallon per 1000 square feet to crawl spaces, unfinished basements, attics, and other crawl spaces as a course fan spray. Both swarming termites and the areas where they gather should be treated.

Controlling above-ground termites in localized areas of infested wood may be accomplished by diluting 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and applying as a foam or a liquid to voids and galleries in wood that is damaged in addition to spaces between wooden structural members and between the foundation and sill plate where the wood is at risk of attack. Drilling and then injecting the foam or dilution into damaged wood or wall voids with an appropriate directional injector will help reach those areas that are not easy to access. After treatment is completed, securely plug the holes that are in regularly occupied areas in the construction elements.

Controlling termite carton nests in building voids can be accomplished by diluting 1.0 fl. oz. of Quali-Pro Bifenthrin I/T 7.9 F per gallon of water and applying as a foam or a liquid using a pointed projection tool. To obtain control, various depths of injection and numerous injection points may be needed. After treatment is complete and when feasible, remove the carton nest material from the building void.

Pests Under Slabs

To control infestations of Arthropods (e.g., ants, cockroaches, and scorpions) that live beneath the slab area, drill or horizontally rod and inject 1 gallon of a 0.06% to 0.12% dilution per 10 square feet or 2 gallons of dilution per 10 linear feet.

Posts, Poles, and Other Constructions

Around wooden constructions (signs, fences, and landscape ornamentation), an insecticidal barrier can be established by treating with a 0.06% dilution. Sub-surface injection and gravity-flow through holes in the bottom of the trench are two treatment methods that can be used on poles and posts that have already been installed. Establishing a complete chemical zone around the pole can be accomplished by treating on all sides. For poles and posts that are fewer than 6 inches in diameter, use 1 gallon of dilution per foot of depth and 1.5 gallons for larger poles applying under the wood to a depth of 6 inches. Four gallons per 10 linear feet per foot of depth should be used for larger constructions.

Control of Wood-Infesting Insects in Wood (Localized Areas in Structures)

Insects	Application Rate	Remarks
Termites Ants Carpenter Ants Wood-infesting beetles (including but not limited to Old House Borer & Powder Post)	Apply a 0.06% dilution to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk.	<ul style="list-style-type: none"> • Can be applied as a paint or fan spray. • Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. • Areas to which access is difficult can be treated by drilling and then injecting dilution with a crack and crevice injector into the damaged wood or void spaces. (Not intended as a replacement for soil treatment, mechanical alteration, or fumigation to control widespread infestation of wood-infesting insects.

Control of Wood-Infesting Insects and Nuisance Pests (Outside of Structures)

In order to control wood-infesting insects active inside trees, utility poles and/or fences, a 0.06% dilution should be injected into the infested cavity which can be found by drilling into the wood. If treating nuisance pests on the exterior of the structure, use a fan spray at a maximum pressure of 25 psi and apply up to the point of runoff. To control Bees, Wasps, Hornets, and Yellow-Jackets, direct the spray at nest openings in the ground, bushes, and in cracks and crevices where the insects may nest. Saturate the openings and contact as many insects as possible.

Underground Services (e.g., cables, conduits, pipes, utility lines, wires, etc.) may be in rights-of-way inside of structures or to guard long range (miles) of installations of services.

Treat the soil using a 0.06 to 0.12% Quali-Pro Bifenthrin I/T 7.9 F dilution to prevent and control termite and ant infestations.

Treat the bottom of the trench with 2 gallons of dilution per 10 linear feet and let it soak into the soil. Place the services on the treated soil and cover with about 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the fill soil to complete the chemical barrier. Only treat the soil in the area near the services in wide trenches, but ensure a continuous barrier of treated soil surrounding the services.

In the event that the soil will not accept the volume stated above, 1 gallon of 0.12% Quali-Pro Bifenthrin I/T 7.9 F may be applied per 10 linear feet of trench over the soil that covers the services and to the base of the trench.

Fill the remainder of the trench with the treated fill soil. Where each service sticks out of the ground, the soil may be treated by trenching/rodding no more than 1 to 2 gallons of dilution into the soil.

Precautions: Do not treat electrically active underground services.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE AND SPILL PROCEDURES: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

CONTAINER DISPOSAL:

For Containers equal to or less than 5 Gallons: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available. If recycling is not available, puncture or dispose of in a sanitary landfill or incineration or if allowed by state and local authorities, by burning. If burned stay out of smoke.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **Conditions, Disclaimer of Warranties and Limitations of Liability**.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Control Solutions, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Control Solutions, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Control Solutions, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Control Solutions, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product

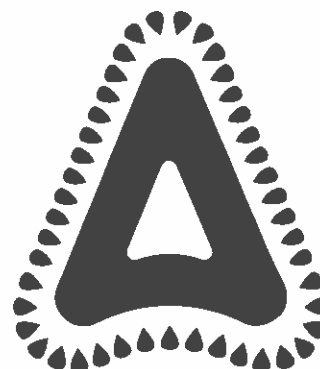
LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Control Solutions, Inc.'s election, the replacement of product.

Micro-injector is a registered trademark of Whitmire Micro-Gen Research Laboratories.

Actisol is a registered trademark of Roussel-Uclaf.

Quali-Pro is a registered trademark of Makhteshim Agan of North America, Inc.

QUALI-PRO



BIFENTHRIN I/T 7.9F

Insecticide/Termiticide

For prevention and control of listed termites, carpenter ants and other pests of structures. To control listed pests in and around such areas as homes, commercial and industrial buildings, recreational areas, athletic fields, lawns, ornamentals, and greenhouses. Controls pests in livestock and poultry houses.

For Use as a Termiticide: May only be used by individuals/firms licensed by the State to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product.

ACTIVE INGREDIENTS:	% BY WT.
Bifenthrin*	7.9%
OTHER INGREDIENTS:	92.1%
TOTAL:	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.
Quali-Pro Bifenthrin I/T 7.9F contains 2/3 pound active ingredient per gallon.

Contains bifenthrin, the active ingredient used in Talstar P Professional Insecticide. Quali-Pro Bifenthrin I/T 7.9F is not manufactured or distributed by FMC Corp.

CONTENTS: 1 GALLON



**KEEP OUT OF REACH OF CHILDREN
CAUTION**

For additional precautionary, handling, and use statements, see inside of this booklet.

EPA Reg. No.: 53883-366

EPA Est. No.: 53883-TX-002



ADAMA

Manufactured for:

**Control
Solutions Inc.**

5903 Genoa-Red Bluff, Pasadena, TX 77507
A member of Adama
Consumer and Professional Solutions

PEEL BACK HERE



SAFETY DATA SHEET

Quali-Pro Bifenthrin I/T 7.9 F

Page 1 of 7
Revision Date: October 20, 2015

SECTION 1: IDENTIFICATION

Product Name: Quali-Pro Bifenthrin I/T 7.9 F
EPA Registration No.: 53883-365
Recommended Use: Insecticide; See product label for a complete list of uses and use sites.
Restrictions on Use: See product label for any restrictions on the use of this product.
Chemical Family: Pyrethroid
Chemical Name of Active Ingredient(s): Bifenthrin: 2-Methyl-3-phenylphenyl)methyl (1S,3S)—[(Z)-2-chloro-3,3,3-trifluoroprop-1-enyl]-2,2-dimethylcyclopropane-1-carboxylate
Manufactured for: Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300

FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Eggshell white liquid with a mild chemical odor.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Inhalation Toxicity	Category 4
Skin Sensitization	Category 1B

Signal Word: WARNING



Hazard Statement(s): Harmful if inhaled.
May cause an allergic skin reaction.

Precautionary Statement(s):

Prevention: Avoid breathing mist/ vapors/spray.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.

Response: **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water.
IF SKIN IRRITATION OR RASH OCCURS: Get medical advice/attention. Specific treatment (see first aid section of this document). Wash contaminated clothing before reuse.

Storage: No statement required. See section 7 for storage information.

Disposal: Dispose of contents/container in accordance with Federal, state and local laws and regulations.

The following percentage of the mixture consists of components with unknown hazards regarding the acute toxicity:

22.1% Acute oral toxicity
23.56% Acute dermal toxicity

23.56% Acute Inhalation toxicity
22.1% Eye irritation
22.1% Skin irritation
22.1% Skin Sensitization

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Bifenthrin	82657-04-3	7.9%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIRST AID MEASURES

IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF INGESTED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Allergic skin reaction.

NOTE TO PHYSICIAN: This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Foam, dry chemical, carbon dioxide or water spray
Unsuitable Extinguishing Media:	Water jet
Hazardous Combustion Products:	Thermal decomposition may produce toxic carbon and nitrogen oxides.
Special Protective Equipment & Precautions:	Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).
Unusual Fire & Explosion Hazards:	None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	See Section 8 for personal protection equipment.
Environmental Precautions:	Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.
Methods for Containment:	Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Absorb small spills with sand, vermiculite or other inert absorbent. Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal.
Methods for Clean-up:	Place contaminated material in appropriate container for disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.
Other Information:	None known

SECTION 7: HANDLING AND STORAGE

Handling:	RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.
Storage:	See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.
Storage Temperature (Min/Max):	Not determined but avoid extreme temperatures.
Product Incompatibilities:	Avoid contact with strong oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
No components listed			

Engineering Controls:	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.
Respiratory Protection:	In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.
Eye Protection:	Chemical goggles or safety glasses and full-face shield.

Protective Gloves:	Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.
Other Protective Clothing:	Long-sleeved shirt, long pants and chemical resistant footwear plus socks.
General Safety Measures:	Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Eggshell white liquid	Upper/Lower Flammability Limits:	Not determined
Odor:	Mild chemical odor	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH (1% dispersion):	5.8 – 6.2	Relative Density (@24°C):	1.038 (typical)
Melting /Freezing Point:	Not determined	Solubility in Water:	Dispersible
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	>212°F (>100°C)	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No hazardous chemical reactions known.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known.
Conditions to Avoid:	Extreme temperatures
Incompatible Materials:	Strong oxidizers
Hazardous Decomposition Products:	Thermal decomposition may produce toxic carbon and nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	No overt symptoms.
Oral LD₅₀:	4,489 mg/kg (Estimated based upon component data)
Dermal LD₅₀:	4,685 mg/kg (Estimated based upon component data)
Inhalation LC₅₀:	4.56 mg/L (Estimated based upon component data)
Eye Irritation/Damage:	Not anticipated to be an eye irritant based upon component data.
Skin Corrosion/Irritation:	Not anticipated to be a skin irritant based upon component data.
Skin Sensitization:	Non-sensitizer, based upon component data.
Chronic/Subchronic Toxicity:	No data available
Mutagenicity:	No data available
Reproductive Toxicity:	No data available
Neurotoxicity:	No data available
Target Organs:	Skin

Aspiration Hazard: Not anticipated to be an aspiration hazard.
Carcinogenicity: The EPA considers bifenthrin to be a possible human carcinogen based upon animal studies.

Chemical Name	ACGIH	IARC	NTP	OSHA
No components listed				

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

ECOTOXICITY DATA:

The data presented below is for bifenthrin technical.

Fish Toxicity: Rainbow trout: 96 hr LC_{50} = 0.00015 ppm
 Bluegill sunfish: 96 hr LC_{50} = 0.00035 ppm

Aquatic Invertebrate Toxicity: No data available

Aquatic Plant Toxicity: No data available

Avian Toxicity: Bobwhite quail: Oral LD_{50} = 1,800 mg/kg
 Mallard duck: Oral LD_{50} = 2,150 mg/kg

Honeybee Toxicity: Highly toxic

ENVIRONMENTAL EFFECTS:

Persistence and Degradability: No data available

Bioaccumulation: No data available

Mobility: No data available

Other Adverse Effects: No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal: Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

DOT
(Ground): Not regulated

IMDG
(Sea): UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII

IATA
(Air): UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None

Section 311/312 – Hazard Categories: Acute (Immediate); Chronic (Delayed)

Section 313 – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %	SARA 313 – Threshold Values (lbs)
Bifenthrin	82657-04-3	7.9%	10,000

CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
None listed		

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Bifenthrin	X		

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 1	Instability 0	Special Hazards – None
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Disclaimer: Control Solutions, Inc. believes the information presented herein is accurate and correct as of the document date. The presented information is based upon available data from reliable sources. Control Solutions, Inc. makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

Revision Date: October 20, 2015

Document Superseded: April 6, 2015

Revision Note:

Issue Date 10-Nov-2014

Revision Date 26-Jun-2018

Version 5

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name SpeedZone® Broadleaf Herbicide for Turf

Other means of identification

Product Code PBI FP 6541046

EPA Pesticide Registration Number 2217-833

Product Size 30 U. S. Gal.

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide.

Uses advised against No information available.

Details of the supplier of the safety data sheet

Supplier

PBI Gordon Corporation
 1217 West 12th Street
 Kansas City, MO 64101

Manufacturer

PBI Gordon Corporation
 1217 West 12th Street
 Kansas City, MO 64101

Company Name

PBI Gordon Corporation
 1217 West 12th Street
 Kansas City, MO 64101

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Oral Toxicity	Category 4
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Gases	Category 3
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Serious eye damage/eye irritation	Category 1
Skin Sensitization	Category 1
Germ cell mutagenicity	Category 1B
Aspiration Toxicity	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Causes serious eye damage. May cause an allergic skin reaction. May cause genetic defects. May be fatal if swallowed and enters airways.



Appearance Liquid	Physical State @20°C Liquid	Odor Esters
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Precautionary Statements - Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective gloves

Precautionary Statements - Response

- IF exposed or concerned: Get medical advice/attention
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF ON SKIN: Wash with plenty of soap and water
- Call a POISON CENTER or doctor/physician if you feel unwell
- Remove/Take off immediately all contaminated clothing
- Wash contaminated clothing before reuse
- If skin irritation or rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician
- Rinse mouth
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Do NOT induce vomiting

Precautionary Statements - Storage

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Have the product label with you when calling a poison control center or doctor or going in for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS. Number	Weight %
2,4-D, 2-ethylhexyl ester	1928-43-4	28.57
Trade Secret	Proprietary	20-30*
R(+)(2 Methyl-4-chlorophenoxy)propionic acid (MCP)	16484-77-8	5.88
3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9	1.71
Carfentrazone-ethyl	128639-02-1	0.62
Trade Secret	Proprietary	0-10*

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General advice

If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do

	not get in eyes, on skin, or on clothing.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Move to fresh air in case of accidental inhalation of vapors or decomposition products. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately. Vomiting may cause aspiration pneumonia.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization of susceptible persons. Treat symptomatically. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Foam. Carbon dioxide (CO₂). Dry chemical.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Cover liquid spill with sand, earth or other non-combustible absorbent material. Use personal protective equipment as required. Dam up. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers. Keep from freezing.

Incompatible materials

None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2,4-D, 2-ethylhexyl ester 1928-43-4	TWA: 10 mg/m ³ inhalable fraction S*	TWA: 10 mg/m ³	IDLH: 100 mg/m ³ , TWA: 10 mg/m ³

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield.

Skin and body protection

Wear long-sleeved shirt, long pants, socks and shoes. Chemical resistant gloves.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State @20°C

Liquid

Appearance

Liquid

Color

Amber

Odor

Odor threshold

Esters

No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not Applicable	
Melting point/freezing point	<35 °F	
Boiling point / boiling range	> 93 °C / 200 °F	
Flash point	> 94 °C / > 201 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	< 1	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	0.9665	
Water solubility	Emulsifiable	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Oxidizing properties	No information available	

Other Information

Density VALUE 8.05 pounds/gallon

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Will not occur.

Conditions to avoid

Keep from freezing.

Incompatible materials

None known.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions. Hydrogen chloride. Nitrogen oxides (NOx). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Irritant, moderate respiratory.
Eye contact	Moderately irritating to the eyes.
Skin Contact	Moderate skin irritation.
Ingestion	Ingestion of large amounts can cause abdominal discomfort, nausea, and vomiting.

Chemical Name	LD50 Oral VALUE (mg/kg)	LD50 Dermal VALUE	LC50 Inhalation (DUST) VALUE
2,4-D, 2-ethylhexyl ester 1928-43-4	= 300 mg/kg (Rat)	-	-
Trade Secret	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
R(+)-2(2-Methyl-4-chlorophenoxy)propionic acid (MCP)P 16484-77-8	= 1050 mg/kg (Rat)	> 4 g/kg (Rat)	-
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	= 1039 mg/kg (Rat)	> 1 g/kg (Rat) > 2 g/kg (Rabbit)	-
Trade Secret	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in its Group 2B (limited evidence for Carcinogenicity in humans.) The US EPA has given the chlorophenoxy Herbicides 2,4-D, 2,4-DP, MCP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.) More current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2,4-D toxicology has concluded that 2,4-D is not a carcinogen. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
2,4-D, 2-ethylhexyl ester 1928-43-4		Group 2B		X
R(+)-2(2-Methyl-4-chlorophenoxy)propionic acid (MCP)P 16484-77-8		Group 2B		X

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.
Aspiration hazard Vomiting may cause aspiration pneumonia.

Numerical measures of toxicity - Product Information

Unknown Toxicity 32 % of the mixture consists of ingredient(s) of unknown toxicity
LD50 Oral VALUE (mg/kg) > 2000 mg/kg Rat-male Rat-female
LD50 Dermal VALUE > 1000 mg/kg
LC50 Inhalation (DUST) VALUE > 2.06 mg/L Rat-male Rat-female

The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (inhalation-gas) 1864 mg/L

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects This pesticide is toxic to fish and aquatic invertebrates and may adversely affect non-target plants. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. DO NOT contaminate waters when disposing of equipment wash waters or rinsate

33% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2,4-D, 2-ethylhexyl ester 1928-43-4	30: 120 h Pseudokirchneriella subcapitata mg/L EC50 30: 120 h Pseudokirchneriella subcapitata mg/L EC50 static	6 - 8.7: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 7.8: 96 h Oncorhynchus mykiss mg/L LC50 static 11.5: 96 h Lepomis macrochirus mg/L LC50 static		
Trade Secret		2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through		4720: 96 h Den-dronereides heteropoda mg/L LC50
Trade Secret		9.22: 96 h Oncorhynchus mykiss mg/L LC50		6.14: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container, unless specified by the manufacturer.
US EPA Waste Number	No information available

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name

For package sizes less than 43.48 gallons: product is non-regulated.

Description

For package sizes 43.48 gallons or greater: UN3082, Environmentally Hazardous Substances, Liquid, N.O.S., 9, PGIII, RQ (2,4-D)

The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept.

PESTICIDES, NOI, INCLUDING DEFOLIANTS, FUNGICIDES, HERBICIDES, OR INSECTICIDES NMFC 155050-6

If shipped in bulk containers (greater than 119 gallons), this product is a Marine Pollutant.

When shipped as a Hazardous Material, label required is Class 9 (Miscellaneous).

Placards required on bulk shipments only.

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 2217-833

Federal Insecticide, Fungicide, Rodenticide Act Regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

CAUTION

KEEP OUT OF REACH OF CHILDREN

Hazards to Human and Domestic Animals

CAUTION: Causes moderate eye irritation. Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates and may adversely affect non-target plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate. This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

International Inventories

TSCA	Not Listed
DSL/NDSL	Not Listed
EINECS/ELINCS	Not Listed
ENCS	Not Listed
IECSC	Not Listed
KECL	Not Listed
PICCS	Not Listed
AICS	Not Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2,4-D, 2-ethylhexyl ester				X						
Trade Secret	X	X		X			X	X	X	X
R(+)-2(2-Methyl-4-chlorophenoxy)propionic acid (MCP)				X						
3,6-Dichloro-o-anisic acid (Dicamba)				X		X		X	X	X
Carfentrazone-ethyl							X			
Trade Secret	X	X		X			X	X	X	X

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical

or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2,4-D, 2-ethylhexyl ester - 1928-43-4	0.1
3,6-Dichloro-o-anisic acid (Dicamba) - 1918-00-9	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
2,4-D, 2-ethylhexyl ester 1928-43-4	100 lb			
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	1000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
2,4-D, 2-ethylhexyl ester 1928-43-4	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2,4-D, 2-ethylhexyl ester 1928-43-4	X		
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	X	X	X

International Regulations

Mexico - Grade

Moderate risk, Grade 2

16. OTHER INFORMATION

NFPA	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection X

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of PBI Gordon Corporation's knowledge, information and belief at the date of this publication. The information given is designed only as guidance for safe

handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process, unless specified in the text. PBI GORDON CORPORATION MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. Each user is also responsible for evaluating the conditions of use and designing the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. PBI Gordon Corporation assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

End of Safety Data Sheet

1. Product and Company Identification

Product Code:	902080	
Product Name:	TCS Growstar Professional Turf Fertilizer (24-0-6)	
Trade Name:	Granular Fertilizer	
Company Name:	Turf Care Supply Corp. 50 Pearl Road Suite 200 Brunswick, OH 44212	Phone Number: 1 (330)558-0910
Web site address:	www.turfcare supply.com	
Email address:	regaffairs@tcscusa.com	
Emergency Contact:	PERS	1 (800)633-8253
Information:	Turf Care Supply Corp.	1 (330)558-0910
Synonyms:	Granular Fertilizer	

2. Hazards Identification

Acute Toxicity: Oral, Category 4



GHS Signal Word:	Warning
GHS Hazard Phrases:	Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause damage to respiratory system and lungs through prolonged or repeated exposure.
GHS Precaution Phrases:	Avoid breathing dust. Wear protective gloves, protective clothing, and eye protection. Call a POISON CENTER or doctor/physician if you feel unwell.
GHS Response Phrases:	If eye irritation persists, get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
GHS Storage and Disposal Phrases:	Store in a diked or contained area to prevent uncontrolled release to the environment. Store in a closed container. If material cannot be completely used according to label directions, dispose of container and contents according to section 13.
Potential Health Effects (Acute and Chronic):	Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated exposure may cause permanent eye damage. Chronic exposure may cause lung damage. Effects may be delayed.
Inhalation:	May be harmful if inhaled. Low hazard for normal industrial handling. The toxicological properties of this substance have not been fully investigated. May cause systemic effects. Material may be irritating to mucous membranes and upper respiratory tract.
Skin Contact:	May cause skin irritation. Dust causes mechanical irritation. Low hazard for usual industrial handling.
Eye Contact:	May cause eye irritation. Dust may cause mechanical irritation.
Ingestion:	May be harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Low hazard for normal industrial handling. The toxicological properties of this substance have not been fully investigated. May cause systemic effects.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
57-13-6	Urea	52.1 %
1317-65-3	Limestone	34.5 %
7447-40-7	Potassium chloride	9.6 %
14808-60-7	Quartz	1.15 %
7704-34-9	Sulfur	1.12 %

4. First Aid Measures

Emergency and First Aid

Procedures:

In Case of Inhalation:	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
In Case of Skin Contact:	Get medical aid if irritation develops or persists. In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. Wash off with soap and plenty of water.
In Case of Eye Contact:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Do NOT allow victim to rub eyes or keep eyes closed.
In Case of Ingestion:	Get medical aid. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Call a poison control center. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Signs and Symptoms Of Exposure:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Note to Physician:	Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Pt:	No data.
Explosive Limits:	LEL: No data. UEL: No data.
Autoignition Pt:	No data.
Suitable Extinguishing Media:	For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray.
Fire Fighting Instructions:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible. Decomposes at high temperatures, resulting in toxic and corrosive products. Runoff from fire control or dilution water may cause pollution.
Flammable Properties and Hazards:	Most of the components of this product are non-combustible. However, a portion of them may support combustion at elevated temperatures.
Hazardous Combustion Products:	Thermal decomposition may result in the production of ammonia, formaldehyde, biuret, chlorine, cyanic acid, and cyanide, and oxides of carbon, nitrogen, phosphorus, potassium, sulfur, and chlorine, and oxides of alkaline earth metals, and certain heavier metals used as nutrients in fertilizer products, such as copper, iron, manganese, and zinc, and other toxic and irritating fumes and gases.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:

Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Avoid runoff into storm sewers and ditches which lead to waterways. Do not let this product enter the environment except as directed on product label. Clean up spills immediately, observing precautions in the Protective Equipment section.

Personal precautions.

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Environmental precautions.

Do not let product enter drains.

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

PROCEDURES & PERSONAL PRECAUTIONS.

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

Methods for cleaning up.

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7. Handling and Storage

Precautions To Be Taken in Handling:

Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling. Use only in a well-ventilated area. Keep container tightly closed. Wash clothing before reuse.

Provide appropriate exhaust ventilation at places where dust is formed.

Precautions To Be Taken in Storing:

Store in a cool, dry place. Keep container closed when not in use.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
57-13-6	Urea	No data.	No data.	No data.
1317-65-3	Limestone	PEL: 15 (dust); 5 (resp.) mg/m3	No data.	No data.
7447-40-7	Potassium chloride	No data.	No data.	No data.
14808-60-7	Quartz	PEL: 50 ug/m3	TLV: 0.05 mg/m3 (R)	No data.
7704-34-9	Sulfur	No data.	No data.	No data.

Respiratory Equipment (Specify Type):	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.
Eye Protection:	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Protective Gloves:	Wear appropriate protective gloves to prevent skin exposure. Wash and dry hands.
Other Protective Clothing:	Wear appropriate protective clothing to prevent skin exposure. Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Engineering Controls (Ventilation etc.):	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Work/Hygienic/Maintenance Practices:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States:	[] Gas [] Liquid [X] Solid	
Appearance and Odor:	Multi-colored, granular solid. Slight ammonia-like odor.	
pH:	No data.	
Melting Point:	~ 133 C	
Boiling Point:	No data.	
Flash Pt:	No data.	
Evaporation Rate:	No data.	
Flammability (solid, gas):	No data available.	
Explosive Limits:	LEL: No data.	UEL: No data.
Vapor Pressure (vs. Air or mm Hg):	No data.	
Vapor Density (vs. Air = 1):	No data.	
Specific Gravity (Water = 1):	No data.	
Bulk density:	~ 45 - 65 LB/CF	
Solubility in Water:	~ 1,080 g/l at 20.0 C	
Solubility Notes:	The solubility value cited is for the urea component of this product, if present. See section 3.	
Octanol/Water Partition Coefficient:	No data.	
Autoignition Pt:	No data.	
Decomposition Temperature:	~ 135 C	
Viscosity:	No data.	
Additional Physical Information	The melting point and decomposition temperatures cited are for the urea component of this product, if present. See section 3. Urea decomposes before boiling. (UNEP Publication, OECD SIDS UREA, CAS No: 57-13-6)	

10. Stability and Reactivity

Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Incompatible materials, dust generation, heating to decomposition. High temperatures.
Incompatibility - Materials To Avoid:	Strong oxidizing agents, bases, acids, aluminum.
Hazardous Decomposition or Byproducts:	The decomposition of fertilizer products may result in the generation of some or all of the following: ammonia, formaldehyde, biuret, chlorine, cyanic acid, and cyanide, and oxides of carbon, nitrogen, phosphorus, potassium, sulfur, and chlorine, and oxides of alkaline earth metals, and certain heavier metals used as nutrients in fertilizer products, such as copper, iron, manganese, and zinc, and other irritating and toxic fumes and gases.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. Toxicological Information

Toxicological Information:	<p>Epidemiology: No information found.</p> <p>Teratogenicity: Teratogenic effects have occurred in experimental animals.</p> <p>Neurotoxic effects have occurred in experimental animals.</p> <p>Reproductive toxicity - no data available.</p> <p>Inhalation: May cause damage to organs through prolonged or repeated exposure.</p> <p>CAS# 57-13-6: Urea:</p> <p>Other Studies:, TClO, Inhalation, Rat, 288.0 MG/M3, 17 W; Gigiena Truda i Professional'nye Zabolevaniya.(Labor Hygiene and Occupational Disease), V/O Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 30(3),43, 1986</p> <p>Acute toxicity, LD50, Oral, Rat, 8471. MG/KG; Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow 113095 Russia, Vol/p/yr: 51(6),8, 1986</p> <p>Standard Draize Test, Skin, Human, 22.00 MG, 3 D; Cutaneous Toxicity, Proceedings of the 3rd Conference, 1976, D, V.A., and P. L, New York, Academic Press, Inc., London United Kingdom, Vol/p/yr: -,127, 1977</p> <p>CAS# 7447-40-7: Potassium chloride:</p> <p>Acute toxicity, LD50, Oral, Rat, 2600. MG/KG; "Sbornik Vysledku Toxixologickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,8, 1972</p> <p>Standard Draize Test, Eyes, Species: Rabbit, 500.0 MG, 24 H; "Sbornik Vysledku Toxixologickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,8, 1972</p> <p>CAS# 7704-34-9: Sulfur:</p>
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(24-0-6)

Acute toxicity, LC50, Inhalation, Species: unspecified., 1660. MG/M3; Gigiena Truda i Professional'nye Zabolevaniya.(Labor Hygiene and Occupational Disease), V/O Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 34(12),8, 1990

Standard Draize Test, Eyes, Human, 8.000 PPM; Analytical Chemistry., American Chemical Soc., Distribution Office Dept. 223, POB 57136, West End Str., Washington, DC 20037, Vol/p/yr: 21,1411, 1949

Carcinogenicity/Other Information:

This material may contain small amounts of respirable crystalline and amorphous silica. The International Agency for Cancer Research (IARC) has classified crystalline silica as a carcinogen to humans (Group 1), and amorphous silica as not classifiable as to its carcinogenicity to humans (Group 3). See "Silica, Some Silicates, Coal dust and para-Aramid Fibrils in IARC Monographs on the Evaluation of Carcinogenic Risks to Humans", (Vol. 68).

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
57-13-6	Urea	n.a.	n.a.	n.a.	n.a.
1317-65-3	Limestone	n.a.	n.a.	n.a.	n.a.
7447-40-7	Potassium chloride	n.a.	n.a.	n.a.	n.a.
14808-60-7	Quartz	Known	1	A2	n.a.
7704-34-9	Sulfur	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

General Ecological Information:

Environmental: If released to the atmosphere, urea will degrade rapidly in the vapor-phase by reaction with photochemically produced hydroxyl radicals (half-life of 9.6 hr). If released to soil, urea is hydrolyzed to ammonium through soil urease activity (the basis of its use as a fertilizer). The rate of hydrolysis can be fast (24 hr); however, a number a variables (such as increasing the pellet size of the fertilizer) can decrease the degradation rate from days to weeks.

Other: Do not empty into drains.

Other: Estimated BCF value = 0.05. This value indicates that this product will exhibit low bioconcentration in aquatic organisms. Biodegradation is expected to be an important fate process in water. It has a low potential to affect aquatic systems. If diluted with water, this chemical released directly or indirectly into the environment is not expected to have a significant impact.

CAS# 57-13-6: Urea:

Lethal concentration to 0% of test organisms., Creek Chub (*Semotilus atromaculatus*), 16000000. UG/L, 24 H, Mortality, Water temperature: 15.0 C - 21.0 C C, pH: 8.30, Hardness: 98.00 MG/L; Appraisal of a Chemical Waste Problem by Fish Toxicity Tests, Gillette, L.A., D.L. Miller, and H.E. Redman, 1952

CAS# 7447-40-7: Potassium chloride:

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 1610000. UG/L, 48 H, Mortality, Water temperature: 17.0 C C, pH: 7.70, Hardness: 40.00 MG/L; Toxicity of Candidate Molluscicides to Zebra Mussels (*Dreissena polymorpha*) and Selected Nontarget Organisms, Waller, D.L., J.J. Rach, W.G. Cope, L.L. Marking, S.W. Fisher, and H. Dabrowska, 1993

	CAS# 7704-34-9: Sulfur: LC50, Rainbow Trout (<i>Oncorhynchus mykiss</i>), 180.0 PPM, 96 H, Mortality; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000
Persistence and Degradability:	No data available.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	No data available.

13. Disposal Considerations

Waste Disposal Method:	If material cannot be completely used according to label directions, dispose of container and contents according to this section. Contact a licensed professional waste disposal service to dispose of this material. Do not let product enter drains. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed. Observe all federal, state, and local environmental regulations.
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14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated.
DOT Hazard Class:
UN/NA Number:

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
57-13-6	Urea	No	No	No
1317-65-3	Limestone	No	No	No
7447-40-7	Potassium chloride	No	No	No
14808-60-7	Quartz	No	No	No
7704-34-9	Sulfur	No	No	No

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Acute (immediate) Health Hazard
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Chronic (delayed) Health Hazard
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Fire Hazard
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sudden Release of Pressure Hazard
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Reactive Hazard

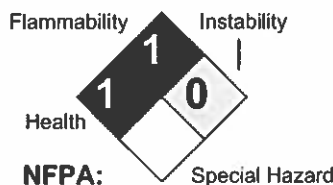
CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
57-13-6	Urea	CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A CAIR; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL:

1317-65-3	Limestone	No CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1
7447-40-7	Potassium chloride	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No
14808-60-7	Quartz	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1
7704-34-9	Sulfur	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1

16. Other Information

Revision Date: 10/27/2016

Hazard Rating System:



Additional Information About No data available.

This Product:

**Company Policy or
Disclaimer:**

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and Turf Care Supply Corp. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purposes.

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Name:** Cheetah® Pro**EPA Reg. No.:** 228-743**Product Type:** Herbicide**Company Name:** Nufarm Americas Inc
11901 S. Austin Avenue
Alsip, IL 60803
1-855-280-6609**Telephone Numbers:** For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night: 1-800-424-9300
For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. HAZARDS IDENTIFICATION**PHYSICAL HAZARDS:**

Flammable liquid

Category 4

HEALTH HAZARDS:

Acute Inhalation Toxicity

Category 3

Eye Damage / Irritation

Category 2B

Sensitization- Skin

Category 1

Specific Target Organ Toxicity – Repeat Exposure

Category 2

ENVIRONMENTAL HAZARDS:

Not hazardous

SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

Combustible liquid. Toxic if inhaled. May cause damage to organs through prolonged or repeated exposure. Causes eye irritation. May cause an allergic skin reaction.

**PRECAUTIONARY STATEMENTS**

Keep away from flames and hot surfaces- No smoking. Do not breath mist / vapors / spray. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center / doctor if you are exposed and feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.

Get medical attention if you feel unwell.

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

SAFETY DATA SHEET

Cheetah® Pro

Dispose of contents in accordance with local, state, and federal regulations or as instructed on product label.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	% BY WEIGHT
Glufosinate-ammonium	77182-82-2	24.6 – 26.1
Other Ingredients	Proprietary*	Trade Secret

Synonyms: mixture containing 2-amino-4-(hydroxymethylphosphinyl)butanoic acid monoammonium salt

*Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If in Eyes: Hold eye open and rinse slowly and gently with water for several minutes. Remove contact lenses, if present, then continue rinsing eye. Call a poison control center or doctor for treatment advice if irritation occurs and persists.

Most Important symptoms/effects, acute and delayed: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Inhalation can cause nausea, vomiting, and diarrhea. Skin exposure may cause slight irritation.

Indication of Immediate medical attention and special treatment if needed: Glufosinate-ammonium is a glutamine synthetase inhibitor and can interfere with neurotransmitter function. Symptoms may be delayed by up to 48 hours following ingestion. There is no specific antidote. If ingested, endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. Decontaminate tools and equipment following cleanup.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Handling:

Do not get in eyes, on skin or on clothing. Avoid breathing spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Storage:

Do not use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature should not exceed 125° F. If storage temperature of this product is below 32° F, the material should not be pumped until its temperature exceeds 32° F. Protect against direct sunlight. Do not contaminate water, food, feed, or seed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses or faceshield. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin wear coveralls worn over short-sleeved shirt and short pants, chemical resistant footwear plus socks, chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils. When mixing, loading, or cleaning equipment a chemical resistant apron must be worn. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If dusts exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides. Mixers/loaders supporting aerial applications must wear a dust/mist filtering respirator (NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Glufosinate-ammonium	NE	NE	NE	NE	
Trade Secret	NE	NE	50	100	ppm
Other Ingredients	NE	NE	NE	NE	

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Transparent yellow liquid
Odor:	Mild sweet
Odor threshold:	No data available
pH:	8.0 (1% w/w dispersion in DIW)
Melting point/freezing point:	No data available
Initial boiling point and boiling range	No data available
Flash point:	145°F (63°C)
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available

SAFETY DATA SHEET

Cheetah® Pro

Relative density: 1.085 g/cm³ at 26°C
Solubility(ies): No data available
Partition coefficient: n-octanol/water: No data available
Autoignition temperature: No data available
Decomposition temperature: No data available
Viscosity: 17.5 cps (26°C); 10.4 cps (39°C) capillary method

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: May produce gases such as oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact

Symptoms of Exposure:

Eye Contact: Moderately irritating.

Skin Contact: May cause skin irritation. Harmful if absorbed through skin. May cause symptoms similar to ingestion.

Ingestion: Harmful if swallowed. Ingestion may cause irritation of the digestive tract with stomach pain, heartburn, nausea, vomiting or diarrhea.

Inhalation: May cause irritation.

Delayed, immediate and chronic effects of exposure: Skin, eye and/or respiratory irritation.

Toxicological Data:

Data from laboratory studies conducted on this product:

Oral: Rat LD₅₀: 3129 mg/kg

Dermal: Rat LD₅₀: > 2,000 to < 5,000 mg/kg

Inhalation: Rat 4-hr LC₅₀: > 0.55 to < 2.15 mg/L

Eye Irritation: Rabbit: Moderately irritating (MMTS=26.7)

Skin Irritation: Rabbit: Slightly irritating (PDII= 1.3)

Skin Sensitization: Tested positive for sensitization (LLNA).

Subchronic Toxicity: Glufosinate-ammonium was well tolerated in the rat but less well tolerated in the dog in subchronic studies. Glufosinate-ammonium has demonstrated effects on the central nervous system at high dose levels in standard toxicity studies using laboratory animals.

Reproductive Toxicity: Implantation loss occurred at high dose levels in a rat multigeneration study with glufosinate-ammonium. There were no effects on male fertility.

Developmental Toxicity: Tests in the rat and rabbit indicate that exposure to high dose levels of glufosinate-ammonium may result in embryotoxicity.

Mutagenicity and Genotoxicity: Glufosinate-ammonium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity:

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Glufosinate-ammonium	No	No	No	No
Other Ingredients (TRADE SECRET)	No	No	No	No

12. ECOLOGICAL INFORMATION**Ecotoxicity:**

Data on Glufosinate-Ammonium Technical:

96-hr LC ₅₀ Rainbow Trout:	>320 mg/L	Acute LD ₅₀ Bobwhite Quail	> 2000 mg/L
48-hr EC ₅₀ , Daphnia Magna	668 mg/L	Acute LD ₅₀ Mallard Duck	> 2000 mg/L
48-hr LD ₅₀ , Honeybees	354 µg/L		

Environmental Fate:

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not allow to get into surface water, drains and ground water. Drift or runoff from treated areas may adversely affect non-target plants. Apply this product as specified on the label. Do not apply when weather conditions favor runoff or drift.

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method:**

Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Handling and Disposal:

Non-refillable Containers 5 Gallons or Less: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Non-refillable containers larger than 5 gallons: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers larger than 5 gallons: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

DOT:

≥ 119 gallons per completed package

NA1993, COMBUSTIBLE LIQUID, N.O.S., 3, III

IMDG

Not Regulated

IATA

Not Regulated

15. REGULATORY INFORMATION**EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION. Harmful if absorbed through skin, swallowed or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing and breathing vapor. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Acute Health, Chronic Health

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information: Other state regulations may apply. Check individual state requirements.

California Proposition 65: None listed.

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Hazard Rating:**

Rating for this product: Health: 2 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

SAFETY DATA SHEET

Cheetah® Pro

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue: October 2, 2018

Supersedes: NEW

SAFETY DATA SHEET

DOW AGROSCIENCES LLC

Product name: DIMENSION™ 2EW Herbicide

Issue Date: 11/05/2015

Print Date: 11/05/2015

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: DIMENSION™ 2EW Herbicide

Recommended use of the chemical and restrictions on use

Identified uses: End use herbicide product

COMPANY IDENTIFICATION

DOW AGROSCIENCES LLC
9330 ZIONSVILLE RD
INDIANAPOLIS IN 46268-1053
UNITED STATES

Customer Information Number:

800-992-5994
info@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 800-992-5994

Local Emergency Contact: 352-323-3500

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Skin irritation - Category 2

Skin sensitisation - Sub-category 1B

Reproductive toxicity - Category 2

Label elements

Hazard pictograms



Signal word: **WARNING!**

Hazards

Causes skin irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Precautionary statements**Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

Use personal protective equipment as required.

Response

IF ON SKIN: Wash with plenty of soap and water.

IF exposed or concerned: Get medical advice/ attention.

If skin irritation or rash occurs: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

Storage

Store locked up.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CASRN	Concentration
Dithiopyr	97886-45-8	24.0%
Cyclohexanone	108-94-1	13.0%
2-Ethylhexanol	104-76-7	1.9%
Toluene	108-88-3	0.1%
Balance	Not available	61.0%

4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

Ingestion: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: Do not use direct water stream. May spread fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Sulfur oxides. Nitrogen oxides. Hydrogen fluoride. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. When product is stored in closed containers, a flammable atmosphere can develop.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Keep upwind of spill. Ventilate area of leak or spill.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Dithiopyr	Dow IHG	TWA	0.25 mg/m3
	ACGIH	TWA	20 ppm
	ACGIH	STEL	50 ppm
	OSHA Z-1	TWA	200 mg/m3 50 ppm
	ACGIH	TWA	OEL Notation
Toluene	ACGIH	STEL	SKIN
	ACGIH	TWA	20 ppm
	ACGIH	TWA	BEI
	OSHA Z-2	TWA	200 ppm
	OSHA Z-2	CEIL	300 ppm
	OSHA Z-2	Peak	500 ppm

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles.

Skin protection

Hand protection: Use gloves, chemically resistant to this material, at all times.

Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Viton. Butyl rubber. Neoprene. Chlorinated polyethylene. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR").

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use chemical protective clothing resistant to this material, when there is any possibility of skin contact. Wear a face-shield which allows use of chemical goggles, or wear a full-face respirator, to protect face and eyes when there is any likelihood of splashes.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Liquid.
Color	Tan
Odor	Mild
Odor Threshold	No data available
pH	4.57 1% <i>pH Electrode</i> (1% aqueous suspension)
Melting point/range	Not applicable
Freezing point	No test data available
Boiling point (760 mmHg)	No test data available
Flash point	closed cup > 100 °C (> 212 °F) <i>Pensky-Martens Closed Cup ASTM D 93</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	No test data available
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.001 at 20 °C (68 °F) <i>Digital Density Meter (Oscillating Coil)</i>
Water solubility	emulsifiable
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Dynamic Viscosity	34.3 mPa.s at 20 °C (68 °F)
Kinematic Viscosity	No test data available
Explosive properties	No data available
Oxidizing properties	No data available
Liquid Density	1 g/cm ³ at 20 °C (68 °F) <i>Digital density meter</i>
Molecular weight	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Exposure to elevated temperatures can cause product to decompose.
Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials: Avoid contact with: Acids. Amines. Oxidizers.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen fluoride. Nitrogen oxides. Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product:

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:

LD50, Rabbit, > 5,000 mg/kg

Acute inhalation toxicity

No adverse effects are anticipated from single exposure to mist. Based on the available data, narcotic effects were not observed. Based on the available data, respiratory irritation was not observed.

As product:

LC50, Rat, male and female, 4 Hour, Other, > 5.41 mg/l

Skin corrosion/irritation

Brief contact may cause moderate skin irritation with local redness.

May cause peeling of the skin.

Serious eye damage/eye irritation

May cause slight eye irritation.

May cause slight corneal injury.

Sensitization

Has demonstrated the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

For the active ingredient(s):

In animals, effects have been reported on the following organs:

Liver.
Kidney.
Blood.
Thyroid.
Adrenal gland.
Gall bladder.

For the minor component(s):

In animals, effects have been reported on the following organs:

Kidney.
Liver.
Spleen.
Blood.
Central nervous system.

Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

Carcinogenicity

Active ingredient did not cause cancer in laboratory animals.

Teratogenicity

For the active ingredient(s): Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Excessive ingestion of 2-ethylhexanol caused birth defects in laboratory animals only at doses toxic to the mother. Occupational exposure to 2-ethylhexanol by the inhalation or dermal routes poses no significant threat to the offspring. In laboratory animals, toluene has been toxic to the fetus at doses toxic to the mother; it has caused birth defects in mice when administered orally, but not by inhalation. Contains component(s) which, in laboratory animals, have been toxic to the fetus only at doses toxic to the mother. Contains component(s) which did not cause birth defects in laboratory animals. The component(s) is/are: Cyclohexanone.

Reproductive toxicity

In animal studies, active ingredient did not interfere with reproduction.

For the minor component(s): Cyclohexanone caused reduced growth and survival of offspring in an animal reproduction study. Dose levels producing this effect also caused central nervous system effects in parental animals. In animal studies, has been shown to interfere with reproduction in males. Effects have been seen only at doses that produced significant toxicity to the parent animals.

Mutagenicity

For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

For the minor component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were inconclusive

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

Carcinogenicity**Component****Cyclohexanone****List**

ACGIH

Classification

A3: Confirmed animal carcinogen with unknown relevance to humans.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity**Acute toxicity to fish**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Cyprinus carpio (Carp), semi-static test, 96 Hour, 3.0 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), semi-static test, 48 Hour, 4.9 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), static test, 72 Hour, Growth rate inhibition, 0.15 mg/l, OECD Test Guideline 201

Persistence and degradability**Dithiopyr**

Biodegradability: Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Cyclohexanone

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Not applicable

Biodegradation: 87 %

Exposure time: 14 d

Method: OECD Test Guideline 301C or Equivalent

Theoretical Oxygen Demand: 2.61 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 10.6 Hour

Method: Estimated.

2-Ethylhexanol

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Not applicable

Biodegradation: > 95 %
Exposure time: 5 d
Method: OECD Test Guideline 302B or Equivalent
10-day Window: Pass
Biodegradation: 68 %
Exposure time: 17 d
Method: OECD Test Guideline 301B or Equivalent

Theoretical Oxygen Demand: 2.95 mg/mg

Chemical Oxygen Demand: 2.70 mg/mg

Biological oxygen demand (BOD)

Incubation Time	BOD
5 d	26 - 70 %
10 d	75 - 81 %
20 d	86 - 87 %

Photodegradation

Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 9.7 Hour
Method: Estimated.

Toluene

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Biodegradation: 100 %
Exposure time: 14 d
Method: OECD Test Guideline 301C or Equivalent

Theoretical Oxygen Demand: 3.13 mg/mg Calculated.

Photodegradation

Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 2 d
Method: Estimated.

Balance

Biodegradability: No relevant data found.

Bioaccumulative potential

Bioaccumulation: No data available.

Mobility in soil

Dithiopyr

Expected to be relatively immobile in soil ($K_{oc} > 5000$).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient(Koc): 20500

Cyclohexanone

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient(Koc): 15 Estimated.

2-Ethylhexanol

Potential for mobility in soil is low (Koc between 500 and 2000).

Partition coefficient(Koc): 800 Estimated.

Toluene

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient(Koc): 37 - 178 Estimated.

Balance

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. TRANSPORT INFORMATION

DOT

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(Cyclohexanone)
UN number	UN 3082
Class	9
Packing group	III
Reportable Quantity	Cyclohexanone

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Dithiopyr)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Dithiopyr
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(Dithiopyr)
UN number	UN 3082
Class	9
Packing group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard

Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Components	CASRN
Cyclohexanone	108-94-1
2-Ethylhexanol	104-76-7
Toluene	108-88-3

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

United States TSCA Inventory (TSCA)

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number: 62719-542

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

WARNING

Causes skin irritation

Causes moderate eye irritation

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

16. OTHER INFORMATION

Hazard Rating System**NFPA**

Health	Fire	Reactivity
2	1	0

Revision

Identification Number: 101213347 / A211 / Issue Date: 11/05/2015 / Version: 5.2

DAS Code: GF-1396

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
BEI	Biological Exposure Indices
CEIL	Acceptable ceiling concentration
Dow IHG	Dow Industrial Hygiene Guideline
OEL Notation	Absorbed via Skin*
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-2	USA. Occupational Exposure Limits (OSHA) - Table Z-2
Peak	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
SKIN	Absorbed via skin
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

SAFETY DATA SHEET

DOW AGROSCIENCES LLC

Product name: GALLERY™ SC Herbicide

Issue Date: 05/18/2015

Print Date: 06/09/2015

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: GALLERY™ SC Herbicide

Recommended use of the chemical and restrictions on use

Identified uses: End use herbicide product

COMPANY IDENTIFICATION

DOW AGROSCIENCES LLC
9330 ZIONSVILLE RD
INDIANAPOLIS IN 46268-1053
UNITED STATES

Customer Information Number:

800-992-5994
info@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 800-992-5994

Local Emergency Contact: 352-323-3500

2. HAZARDS IDENTIFICATION

Hazard classification

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Other hazards

no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component

CASRN

Concentration

Isoxaben

82558-50-7

45.45%

Propylene glycol	57-55-6	4.5%
Ethanol	64-17-5	0.2%
Balance	Not available	49.85%

4. FIRST AID MEASURES

Description of first aid measures

General advice: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Ingestion: No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Unsuitable extinguishing media: no data available

Special hazards arising from the substance or mixture

Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

Storage stability

Storage temperature:	Shelf life: Use within
0 - 30 °C (32 - 86 °F)	24 Month

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Propylene glycol	US WEEL	TWA	10 mg/m3

Ethanol	ACGIH	TWA	1,000 ppm
	ACGIH	STEL	1,000 ppm
	OSHA Z-1	TWA	1,900 mg/m3 1,000 ppm

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Wear clean, body-covering clothing.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Suspension
Color	White
Odor	Odorless
Odor Threshold	No test data available
pH	7.7 1% pH Electrode (1% aqueous suspension)
Melting point/range	Not applicable
Freezing point	No test data available
Boiling point (760 mmHg)	> 100 °C (> 212 °F)
Flash point	closed cup > 100 °C (> 212 °F)
Evaporation Rate (Butyl Acetate = 1)	No test data available

Flammability (solid, gas)	No
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.09 at 20 °C (68 °F) / 4 °C
Water solubility	No test data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	> 400 °C (> 752 °F) <i>Unspecified</i>
Decomposition temperature	No test data available
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	No significant increase (>5C) in temperature.
Molecular weight	no data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials: None known.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Nitrogen oxides. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product:

LD50, Rat, > 5,000 mg/kg No deaths occurred at this concentration.

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:

LD50, Rat, > 5,000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity

No adverse effects are anticipated from inhalation. Based on the available data, respiratory irritation was not observed.

As product:

LC50, Rat, male and female, dust/mist, > 5.71 mg/l No deaths occurred at this concentration.

Skin corrosion/irritation

Brief contact is essentially nonirritating to skin.

Serious eye damage/eye irritation

Essentially nonirritating to eyes.

Sensitization

For similar material(s):

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

For the active ingredient(s):

In animals, effects have been reported on the following organs:

Liver.

Kidney.

Carcinogenicity

For the active ingredient(s): An increase in nonmalignant liver tumors was observed with isoxaben in one of two species tested.

Teratogenicity

For the active ingredient(s): Has caused birth defects in laboratory animals only at doses toxic to the mother.

Reproductive toxicity

For the active ingredient(s): In animal studies, has been shown to interfere with reproduction in females. Effects have been seen only at doses that produced significant toxicity to the parent animals.

Mutagenicity

For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were predominantly negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

Acute toxicity to fish

Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

LC50, *Oncorhynchus mykiss* (rainbow trout), flow-through test, 96 Hour, > 200 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, 544 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

ErC50, *Desmodesmus subspicatus* (green algae), static test, 72 Hour, Growth rate inhibition, 60.21 mg/l, OECD Test Guideline 201

EbC50, *Lemna minor* (duckweed), static test, 14 d, Biomass, 0.044 mg/l

Chronic aquatic toxicity

Chronic toxicity to fish

Information refers to the main component.

NOEC, *Pimephales promelas* (fathead minnow), semi-static test, 33 d, growth, 0.4 mg/l

Chronic toxicity to aquatic invertebrates

Information refers to the main component.

NOEC, *Daphnia magna* (Water flea), semi-static test, 21 d, growth, 0.69 mg/l

Toxicity to Above Ground Organisms

contact LD50, *Apis mellifera* (bees), 48 Hour, > 100micrograms/bee

oral LD50, *Apis mellifera* (bees), 48 Hour, > 100micrograms/bee

Toxicity to soil-dwelling organisms

LC50, *Eisenia fetida* (earthworms), 14 d, mortality, > 1,000 mg/kg

Persistence and degradability

Isoxaben

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. Biodegradation rate may increase in soil and/or water with acclimation.

Theoretical Oxygen Demand: 1.98 mg/mg

Chemical Oxygen Demand: 1.77 mg/g

Stability in Water (1/2-life)

Hydrolysis, half-life, > 5 d, pH 7.0

Photodegradation**Test Type:** Half-life (direct photolysis)**Method:** Measured**Photodegradation****Test Type:** Half-life (direct photolysis)**Photodegradation****Test Type:** Half-life (indirect photolysis)**Sensitizer:** OH radicals**Atmospheric half-life:** 0.628 Hour**Method:** Estimated.**Propylene glycol****Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen).

10-day Window: Pass

Biodegradation: 81 %**Exposure time:** 28 d**Method:** OECD Test Guideline 301F or Equivalent

10-day Window: Not applicable

Biodegradation: 96 %**Exposure time:** 64 d**Method:** OECD Test Guideline 306 or Equivalent**Theoretical Oxygen Demand:** 1.68 mg/mg**Chemical Oxygen Demand:** 1.53 mg/mg**Biological oxygen demand (BOD)**

Incubation Time	BOD
5 d	69.000 %
10 d	70.000 %
20 d	86.000 %

Photodegradation**Atmospheric half-life:** 10 Hour**Method:** Estimated.**Ethanol****Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Pass

Biodegradation: > 70 %**Exposure time:** 5 d**Method:** OECD Test Guideline 301D or Equivalent**Theoretical Oxygen Demand:** 2.08 mg/mg**Photodegradation****Test Type:** Half-life (indirect photolysis)**Sensitizer:** OH radicals

Atmospheric half-life: 2.99 d
Method: Estimated.

Balance

Biodegradability: No relevant data found.

Bioaccumulative potential

Isoxaben

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 2.64 Measured

Propylene glycol

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): -1.07 Measured
Bioconcentration factor (BCF): 0.09 Estimated.

Ethanol

Bioaccumulation: Bioaccumulation is unlikely. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): -0.31 Measured

Balance

Bioaccumulation: No relevant data found.

Mobility in soil

Isoxaben

Potential for mobility in soil is low (Koc between 500 and 2000).
Partition coefficient(Koc): 700 - 1290

Propylene glycol

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): < 1 Estimated.

Ethanol

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 1.0 Estimated.

Balance

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal

methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Isoxaben)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Isoxaben
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(Isoxaben)
UN number	UN 3082
Class	9
Packing group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard

Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Components	CASRN
Propylene glycol	57-55-6

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

United States TSCA Inventory (TSCA)

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number: 62719-658

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

16. OTHER INFORMATION

Hazard Rating System**NFPA**

Health	Fire	Reactivity
0	1	0

Revision

Identification Number: 101200104 / A211 / Issue Date: 05/18/2015 / Version: 2.0

DAS Code: EAF-496

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

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