

Pro Ap Cavalcade 0.29% plus Fertilizer

SAFETY DATA SHEET

Current as of: 6/28/2016

SDS # **S02-029**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Pro Ap Cavalcade .029% plus Fertilizer
Product code : 020101 through 026299 that contain 0.29% Prodiamine
Other means of identification : EPA Reg. No. 60063-41-040249

1.2. Intended Use of the Product

Use of the substance/mixture: Fertilizer and weed killing compound

1.3. Details of the supplier of the safety data sheet

Frick Services, Inc.
3154 W. Depot Street
Wawaka, IN 46794
T 800-552-1754

1.4. Emergency telephone number

Emergency number : 1-800-552-1754

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Acute 3	H402
Aquatic Chronic 3	H412

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H315 - Causes skin irritation
H320 - Causes eye irritation
H335 - May cause respiratory irritation

Precautionary statements (GHS-US)

: P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash ... thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 - If on skin: Wash with plenty of water/...
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center/doctor/... if you feel unwell
P321 - Specific treatment (see ... on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to ... specify in accordance with local/regional/
national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

Pro Ap Cavalcade 0.29% plus Fertilizer

SAFETY DATA SHEET

Current as of: 6/28/2016

SDS # **S02-029**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% Concentration
Urea	(CAS No) 57-13-6	0.1 - 100
Diammonium phosphate	(CAS No) 7783-28-0	0.1 - 100
Potassium chloride	(CAS No) 7447-40-7	0.1 - 100
Monoammonium phosphate	(CAS No) 7722-76-1	0.1 - 100
Ammonium sulfate	(CAS No) 7783-20-2	0.1 - 100
Potassium sulfate	(CAS No) 7778-80-5	0.1 - 100
Limestone	(CAS No) 1317-65-3	0.1 - 70
Dicyandiamide	(CAS No) 461-58-5	0.1 - 10
Polymer Coating		0.1 - 10
Wax (paraffins- petroleum)	(CAS No) 64771-72-8	0.1 - 10
Pigment		0.1 - 10
Prodiamine	(CAS No) 29091-21-2	0.29

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice(show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Pro Ap Cavalcade 0.29% plus Fertilizer

SAFETY DATA SHEET

Current as of: 6/28/2016

SDS # **S02-029**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Multi-colored granules.

Color : Multi-colored

Odor : No data available on odor

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : No data available

Solubility : Soluble and slowly soluble. Polymer coating insoluble. Water: Solubility in water of component(s) of the mixture : • : 100 g/100ml • : 77 g/100ml • : 38 g/100ml • : 34 g/100ml

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight. Extremely high or low temperatures.

Pro Ap Cavalcade 0.29% plus Fertilizer

SAFETY DATA SHEET

Current as of: 6/28/2016

SDS # **S02-029**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.5. Incompatible materials

Oxidizing agent. Prolonged contact may cause oxidation of unprotected metals. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Extremely high temperatures. The product may reach melting point and decompose to release NH₃, SO_x, PO_x, or CN. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Urea (57-13-6)	
LD50 oral rat	8471 mg/kg (Rat)
LD50 dermal rat	> 3200 mg/kg (Rat)
LD50 dermal rabbit	> 21000 mg/kg (Rabbit)
ATE US (oral)	8471.00000000 mg/kg body weight

Ammonium sulfate (7783-20-2)	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg
ATE US (oral)	2840.00000000 mg/kg body weight

Diammonium phosphate (7783-28-0)	
LD50 Oral Rat	6500 mg/kg
LD50 Dermal Rat	> 7950 mg/kg
ATE (Oral)	6,500.00 mg/kg body weight

Monoammonium phosphate (7722-76-1)	
LD50 Oral Rat	5750 mg/kg
LD50 Dermal Rabbit	> 7940 mg/kg
ATE (Oral)	5,750.00 mg/kg body weight

Potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg (Rat)
ATE US (oral)	2600.00000000 mg/kg body weight

Dicyandiamide (461-58-5)	
LD50 Oral Rat	> 5000 mg/kg (Rat)
LD50 Dermal Rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 0.26 mg/l/4h (Rat)

Potassium sulfate (7778-80-5)	
LD50 oral rat	6600 mg/kg (Rat)
ATE US (oral)	6600.00000000 mg/kg body weight

Wax (paraffins- petroleum) (64771-72-8)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

Pro Ap Cavalcade 0.29% plus Fertilizer

SAFETY DATA SHEET

Current as of: 6/28/2016

SDS # **S02-029**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 12: Ecological information

12.1. Toxicity

Urea (57-13-6)	
LC50 fish 1	> 6810 mg/l (96 h; <i>Leuciscus idus</i>)
EC50 Daphnia 1	> 10000 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	17500 mg/l (96 h; <i>Poecilia reticulata</i>)
EC50 Daphnia 2	> 10000 mg/l (24 h; <i>Daphnia magna</i>)
TLM fish 1	17500 ppm (96 h; <i>Poecilia reticulata</i>)
Threshold limit other aquatic organisms 1	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10000 mg/l (<i>Pseudomonas putida</i>)
Threshold limit algae 2	> 10000 mg/l (168 h; <i>Scenedesmus quadricauda</i>)

Diammonium phosphate (7783-28-0)	
LC50 Fish 1	26.5 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i>)
LC50 Fish 2	24.8 - 29.4 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [flow-through])

Monoammonium phosphate (7722-76-1)	
LC50 fish 1	155 ppm (96 h; <i>Pimephales promelas</i>)

Potassium chloride (7447-40-7)	
LC50 fish 1	920 mg/l (96 h; <i>Gambusia affinis</i> ; Static system)
EC50 Daphnia 1	630 mg/l (48 h; <i>Ceriodaphnia dubia</i>)
LC50 fish 2	2010 mg/l (96 h; <i>Lepomis macrochirus</i> ; Static system)
EC50 Daphnia 2	660 mg/l (48 h; <i>Daphnia magna</i>)
Threshold limit algae 1	850 mg/l (72 h; <i>Scenedesmus subspicatus</i>)
Threshold limit algae 2	> 100 mg/l (72 h; <i>Scenedesmus subspicatus</i> ; GLP)

Dicyandiamide (461-58-5)	
LC50 fish 1	7700 mg/l (96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>); Cool water)
EC50 Daphnia 1	3177 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	7900 mg/l (96 h; Pisces)

Potassium sulfate (7778-80-5)	
LC50 fishes 1	1692.4 mg/l (96 h; <i>Alburnus alburnus</i>)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	890 mg/l (48 h; <i>Daphnia magna</i> ; Static system)
LC50 fish 2	653 - 796 mg/l (96 h; <i>Lepomis macrochirus</i>)
EC50 Daphnia 2	1180 mg/l (96 h; Crustacea)
TLM fish 1	3550 ppm (96 h; <i>Lepomis sp.</i>)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	2900 mg/l (72 h; <i>Scenedesmus subspicatus</i>)

12.2. Persistence and degradability

Pro Ap Professional Turf Fertilizer	
Persistence and degradability	Not established.

Urea (57-13-6)	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.
ThOD	0.27 g O ₂ /g substance

Diammonium phosphate (7783-28-0)	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.

Monoammonium phosphate (7722-76-1)	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.

Potassium chloride (7447-40-7)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Dicyandiamide (461-58-5)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Photodegradation in the air. Not established.
BOD (% of ThOD)	0.022 % ThOD

Potassium sulfate (7778-80-5)	
--------------------------------------	--

Pro Ap Cavalcade 0.29% plus Fertilizer

SAFETY DATA SHEET

Current as of: 6/28/2016

SDS # **S02-029**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Wax (paraffins- petroleum) (64771-72-8)	
Persistence and degradability	Not established.

Prodiamine (29091-21-2)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Pro Ap Professional Turf Fertilizer	
Bioaccumulative potential	Not established.

Urea (57-13-6)	
BCF fish 1	1 (72 h; Brachydanio rerio; Fresh water)
BCF other aquatic organisms 1	11700 (Chlorella sp.)
Log Pow	-2.59 - -1.59
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Diammonium phosphate (7783-28-0)	
Bioaccumulative potential	Not bioaccumulative. Not established.

Monoammonium phosphate (7722-76-1)	
Bioaccumulative potential	Not bioaccumulative. Not established.

Potassium chloride (7447-40-7)	
Log Pow	-0.46 (Estimated value)
Bioaccumulative potential	Not bioaccumulative. Not established.

Dicyandiamide (461-58-5)	
BCF fish 1	< 3.1 (Cyprinus carpio; Test duration: 6 weeks)
Log Pow	-1.5 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Potassium sulfate (7778-80-5)	
Bioaccumulative potential	Not bioaccumulative. Not established.

Wax (paraffins- petroleum) (64771-72-8)	
Bioaccumulative potential	No bioaccumulation data available

Pigment	
Bioaccumulative potential	Not established

Prodiamine (29091-21-2)	
Bioaccumulative potential	Not established

12.4. Mobility in Soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials

: Avoid release to the environment.

SECTION 14: Transport information

14.1. In accordance with DOT

Not regulated for transport

14.2. In accordance with IMDG

Not regulated for transport

14.3. In accordance with IATA

Not regulated for transport

Pro Ap Cavalcade 0.29% plus Fertilizer

SAFETY DATA SHEET

Current as of: 6/28/2016

SDS # **S02-029**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 15: Regulatory information

15.1. US Federal regulations

Pro Ap Professional Turf Fertilizer

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory except for:

Prodiamine	CAS No	29091-21-2
------------	--------	------------

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SECTION 16: Other information

Revision date

:

GHS full text phrases

Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H320	Causes eye irritation
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H402	Harmful to aquatic life

The information contained herein is based on available data. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof; and you should make your investigation to determine safety for the use you contemplate. Frick Services, Inc. makes no warranty of merchantability of fitness for a particular use, nor is there any other express or implied warranty except as may be specifically provided otherwise on product.

Frick Services, Inc. assumes no responsibility or liability for any incidental or consequential damages whether related to personal injury or property damage, to vendees, users or third parties, caused by the material; and Frick Services, Inc.'s responsibility is limited to replacement of, or repayment of, the purchase price for the material(s) with respect to which any damages are claimed. All vendees or users assume all risk associated with the use of the material(s).