Safety Data Sheet

Hybrid

OSHA HCS 2024
Canadian Workplace Hazardous Material Information System (WHMIS) 2015 rev 2022
Mexico NOM-018-STPS-2000; NOM-018-STPS-2015
GHS (Globally Harmonized System)

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

1.1. Product identifier

Product name Hybrid

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Adjuvant.

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Manufacturer
Miller Chemical and Fertilizer, LLC
120 Radio Rd
Hanover, PA 17331
Tel.: 717-632-8921
Fax.: 717-646-1104

Internet http://www.millerchemical.com

E-mail info@millerchemical.com

1.4. Emergency telephone number

CHEMTREC: +1 800 424 9300 or International 1+703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Classification Considered a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Physical Hazards Not classified.

Health Hazards Skin Irritant Category 2; H315
Eye Damage Category 1; H318

Environmental Hazard Aquatic Chronic Category 2: H411

2.2. Label elements

Symbols/Pictograms

Signal Word Danger

Hazard Statements
H315 - Causes skin irritation
H318 - Causes serious eye damage
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection and protective gloves
Avoid release to the environment

Response
Specific treatment (see supplemental first aid instructions on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Collect spillage

Disposal Dispose of contents/containers in accordance with local regulations

Additional information Not applicable

Hazards not otherwise classified (HNOC) None known

Hazards associated with known or reasonably anticipated uses None known

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

SECTION 3: Composition/information on ingredients

Pure substance/mixture Mixture

Chemical Name	CAS NUMBER:	Weight-%
Alkyl amine ethoxylate	Proprietary	10 - 30
Proprietary Pinolene Product	Proprietary	10 - 30

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General Advice When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

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

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. Get medical attention.

Ingestion DO NOT INDUCE VOMITING. If vomiting occurs naturally, reduce the risk of aspiration by leaning their body forward. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation Remove to fresh air. If breathing has stopped, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed Causes serious eye damage. Skin irritation.

4.3. Indication of any immediate medical attention and special treatment needed Treatment should be symptomatic and supportive. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media
Water spray (fog).

Unsuitable Extinguishing Media
None known.

5.2. Special hazards arising from the substance or mixture
None known.

5.3. Advice for firefighters

Special protective equipment for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-fighting measures
Water mist may be used to cool closed containers. No special fire protection measures are necessary. Standard procedure for chemical fires.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Keep unauthorized personnel away. Use personal protection recommended in Section 8. In case of fire: Stop leak if safe to do so.

For non-emergency personnel Keep unauthorized personnel away.

For emergency responders Keep unauthorized personnel away. Use personal protection recommended in Section 8.

6.2. Environmental precautions Avoid runoff to waterways and sewers.

6.3. Methods and material for containment and cleaning up Recover free product. To clean up residue, flush sparingly with water or use an absorbent. Avoid runoff to waterways and sewers It may be necessary to remove contaminated soil. If product is flammable or combustible, use non-sparking tools. If required, notify state and local authorities.

6.4. Reference to other sections See Section 8 for exposure controls and personal protection. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Do not handle until all safety precautions have been read and understood. Wear appropriate personal protective clothing to prevent skin contact. Do not get in eyes. Do not breathe vapor or mist. Avoid prolonged contact with material. Do not swallow.

7.2. Conditions for safe storage, including any incompatibilities For industrial use only. Keep container closed when not in use. Provide adequate ventilation when container are open. Keep in a dry, cool and well-ventilated place.

7.3. Specific end use(s) See Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No information available

Biological Limit Values No information available

8.2. Exposure controls

Engineering Measures Provide a good standard of controlled ventilation (5 to 10 air changes per hour). Use exhaust ventilation to keep airborne concentrations below exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment

Eye/Face Protection	Wear safety glasses with side shields (or goggles). Always wear eye protection when working with chemicals.
Skin and Body Protection	Wear suitable protective clothing.
Hand Protection	For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.
Respiratory Protection	In case of inadequate ventilation wear respiratory protection.
Environmental Exposure Controls	Dispose of in accordance with local regulations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	
Physical State	Liquid
Color	Amber to Brown
Odor	Moderate
pH	6.0 - 7.0 @ 20 °C
Melting point / Freezing point	Not applicable
Boiling Point / Boiling Range	435°F (224°C)
Freezing Point	<32 °F (0 °C)
Flash Point	626 °F (330° C)
Evaporation Rate	Not determined
Flammability	Not determined
Vapor Pressure	22.8 mmHg
Relative Vapor Density	Not determined
Density	7.60 - 7.70 lbs/gal @ 68°F (20°C)
Water Solubility	Emulsifier
Partition coefficient	No information available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No information available.
Kinematic viscosity	No data available
Oxidizing Properties	Not applicable
Particle Characteristics	No information available
Specific Gravity	0.9 - 0.93 g/mL @ 68°F (20°C) (H_2O=1 @ 4°C)
Percent Volatile	Not determined
VOC Content (%)	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No data available

9.2.2. Other safety characteristics

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity	Stable under normal conditions
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	Hazardous polymerization does not occur
10.4. Conditions to avoid	Excessive heat , Sources of ignition , Keep from freezing
10.5. Incompatible materials	Strong oxidizing agents
10.6. Hazardous decomposition products	Carbon oxides

SECTION 11: Toxicological information

General Information Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Information on Likely Routes of Exposure

Inhalation	Avoid breathing vapor or mist Not classified
Skin	Avoid prolonged or repeated contact with skin
Eyes	Avoid contact with eyes
Ingestion	Avoid ingestion

11.1. Information on toxicological effects

Alkyl amine ethoxylate

Oral LD50	620 mg/kg (rat)
Dermal LD50	> 10000 mg/kg (rat)
Serious eye damage/eye irritation	Risk of serious damage to eyes
Skin Corrosion/Irritation	Irritating to skin.
Carcinogenicity	The product does not contain any component present at concentration greater than orequal to 0.1% listed as carcinogen/possibly carcinogen for NTP, IARC and OSHA.

Proprietary Pinolene Product

Oral LD50	>5050 mg/kg (rat)
Dermal LD50	>5050 mg/kg (rabbit)
Inhalation LC50	>5260 mg/m^3 (rat)
Skin Corrosion/Irritation	Causes skin irritation

Hybrid

Acute Toxicity	Not classified.
Respiratory Sensitization	Not classified.
Serious eye damage/eye irritation	Causes serious eye damage
Skin Corrosion/Irritation	Causes skin irritation
Skin Sensitization	Not classified.
Mutagenicity	Not classified.
Reproductive Toxicity	Not classified.
Carcinogenicity	No known carcinogens are present at greater than 0.1%
Specific target organ toxicity - Single exposure	Not classified.
Specific target organ toxicity - Repeated exposure	Not classified.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties No endocrine disruptors present in concentrations >= 0.1%

11.2.2. Other information Not applicable

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects

Alkyl amine ethoxylate

Aquatic toxicity This material is toxic to aquatic life.
Persistence / Degradability Expected to be biodegradable
Bioaccumlative potential: Bioconcentration potential in aquatic organisms is moderate.
LC50 48-Hour, Daphnia pulex: 2.35mg/L.
96-Hour LC50 Blue gills: 1.3 mg/L

Proprietary Pinolene Product

Aquatic toxicity

Acute toxicity to fish:
- Oncorhynchus mykiss, (OECD guideline 203) 96h LC50: 5.7 mg/l
- Oncorhynchus mykiss, (OECD guideline 203) 96h LC50: 7.5 mg/l
- Oncorhynchus mykiss, (OECD guideline 203) 96h LC50: > 6.5 mg/l

Acute toxicity to aquatic invertebrates:
- Daphnia magna, (OECD guideline 202) 48h EC50: 0.26 mg/l
- Daphnia magna, (EU Method C.2) 48h EC50: ≥ 2.16 - ≤ 9.74 mg/l

Toxicity to algae:
- Pseudokirchnerella subcapitata, (OECD guideline 201) 72h ErC50: 0.24 mg/l, 72h EbC50: 0.18 mg/l, 72h NOEC: 0.1 mg/l.

Toxicity to bacteria:
- Activated sludge (growth inhibition), (OECD guideline 209) EC50: >100 mg/l

Chronic toxicity to aquatic invertebrates:
- Daphnia magna, 21d NOEC: 0.12 mg/l (read-across to close chemical analogue)
- Daphnia magna, 21d NOEC: 0.27 mg/l (read-across to close chemical analogue)

Aqueous spray application onto water surface (giving nominal test water concentrations 10.7 mg/l Daphnia, 25 mg/l fish) at approximately 1 g/sq.m watersurface caused no evident toxicity in fish. In Daphnia physical entrapment and amaximum of 40% immobilisation was observed.

Toxicity to soil macroorganisms except arthropods:
- Eisenia fetida, 14d LC50: > 1000 mg/kg

Toxicity to honeybees:
- Apis mellifera 48h LD50: > 200 µg per animal (for both ingestion and directcontact)

Toxicity to terrestrial plants
- No adverse effects were observed after spray application of the substance toorange trees, grapevines and cereal crops (wheat and barley).

12.2. Persistence and degradability No data available

12.3. Bioaccumulative potential No data available

12.4. Mobility in soil No data available

12.5. Results of PBT and vPvB assessment No data available

12.6. Endocrine disrupting properties No endocrine disruptors present in concentrations >= 0.1%

12.7. Other Adverse Effects None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Methods If uncontaminated, recover and reuse as product. If contaminated with other materials, the nature and extend of contamination may require use of specialized disposal methods. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Product residue may remain in empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

Mode of Transportation (Road, Water, Air, Rail)

TDG -Canada	Not regulated in non-bulk packages (<119 gal/<882 lb) UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkyl amine ethoxylate, Poly-1-p-menthene)
DOT	Not regulated in non-bulk packages (<119 gal/<882 lb), , UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (Alkyl amine ethoxylate, Poly-1-p-menthene)
ADR	UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (Alkyl amine ethoxylate, Poly-1-p-menthene)
RID	UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (Alkyl amine ethoxylate, Poly-1-p-menthene)
ADN	UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (Alkyl amine ethoxylate, Poly-1-p-menthene)
IATA	UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (Alkyl amine ethoxylate, Poly-1-p-menthene)
IMDG/IMO	UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (Alkyl amine ethoxylate, Poly-1-p-menthene)
ICAO	UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (Alkyl amine ethoxylate, Poly-1-p-menthene)

14.1. UN number or ID number UN3082

14.2. UN proper shipping name UN3082, ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkyl amine ethoxylate, Poly-1-p-menthene)

14.3. Transport hazard class(es) 9

14.4. Packing group III

14.5. Environmental hazards Marine Pollutant

14.6. Special precautions for user Not applicable

14.7. Maritime transport in bulk according to IMO instruments
Not applicable

SECTION 15: Regulatory information

Global Inventories

Pure substance/mixture Mixture

Chemical Name	CAS NUMBER:	Canada (DSL)	Mexico	TSCA: United States
Alkyl amine ethoxylate	Confidential	Present (DSL)	Present	Present
Proprietary Pinolene Product	Confidential	Present (DSL)	Present	Present

Y: Complies ; A: Active ; - / N: Exempt / Not Listed

EPA

Proprietary Pinolene Product
SARA 313 n/a

SARA 311/312 Hazardous Categorization
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
Not regulated

CAA (Clean Air Act)
Not regulated

U.S. State Right-to-Know Regulations

Chemical Name	CAS NUMBER:	California Proposition 65	Massachusetts	Minnesota	New Jersey	Pennsylvania
Alkyl amine ethoxylate	Confidential	N	N	N	N	N
Proprietary Pinolene Product	Confidential	N	N	N	N	N

Y: Listed ; N: Not Listed

CANADA

WHMIS
This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

SECTION 16: Other information

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Reason for Version OSHA (Occupational Safety and Health Administration of the US Department of Labor).

Abbreviations and acronyms
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
WHMIS (Workplace Hazardous Materials Information System)
GHS (Globally Harmonized System)
IARC (International Agency for Research on Cancer)
PPE (Personal Protection Equipment)
TWA (Time-Weighted Average)
TLV® (Threshold Limit Value)
STEL (Short Term Exposure Limit)
RQ (Reportable Quantity) (RQ/% in mixture)
DOT (Department of Transportation)
TDG (Transport of Dangerous Goods) Canada
IATA (International Air Transport Association)
IMDG (International Maritime Dangerous Goods)
ICAO (International Civil Aviation Organization)

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a 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 process, unless specified in the text

End of Safety Data Sheet