



**Safety Data Sheet
CONKLIN COMPANY, INC.**

Date Prepared: 1/3/18

SDS Number: 2072

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier Guardian®-L	General Use Nitrogen Fertilizer Additive
Manufacturer's Name Conklin Company	Emergency Telephone Numbers Health: (888) 786-0974 Transport: (800) 424-9300
Address (Number, Street, City, State and Zip) 551 Valley Park Drive Shakopee, MN 55379	Phone Number for Additional Information (952) 445-6010 Website: www.conklin.com

SECTION 2 - HAZARDS IDENTIFICATION

Signal Word:	Warning
Hazard statements:	Causes respiratory, skin, and eye irritation. DMSO readily penetrates skin and may carry other dissolved chemicals into the body.

Precautions: Wash thoroughly after handling. Wear butyl rubber or nitrile protective gloves, eye protection, and face protection.
Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

Response: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. If eye irritation persists: Get medical attention. Take off contaminated clothing and wash before reuse.

Potential Health Effects, Based on Individual Components (May Vary Among Individuals)

Eye: Liquid, fumes, mists, or vapors may cause severe irritation. Overexposure may result in permanent eye damage or blindness.

Skin: Causes skin irritation.

Ingestion: May be harmful if swallowed.

Inhalation: May cause moderate irritation to respiratory tract (mouth, nose, throat and lungs).

Medical conditions aggravated by exposure:

EFFECTS OF OVEREXPOSURE: General: DMSO has shown very few toxic symptoms in humans. The most common are nausea, skin rashes and an unusual garlic-onion-oyster smell on body and breath. Inhalation: High vapor concentrations may cause headache, dizziness, and sedation. Eyes: Low hazard for usual industrial/ commercial handling by trained personnel. Skin: Stinging and burning of the skin as well as rashes and vesicles have been seen. A heat reaction may occur if applied to wet skin. Avoid contact with DMSO solutions containing toxic material or materials whose toxicological properties are not known. DMSO easily penetrates the skin and may enhance the rate of skin absorption of substances. Ingestion: A low ingestion hazard. See section 2 for further details.

Chronic effect Not known to contain component(s) at 0.1% or greater listed as a carcinogen or possible carcinogen.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percent by Weight
Dimethyl Sulfoxide	67-68-5	70% to 80%
Dicyandiamide	461-58-5	30% to 40%

See Section 8 for exposure guidelines.

SECTION 4 - FIRST AID MEASURES

EYES: Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

INGESTION: If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting

INHALATION: Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 206 °F

EXINGUISHING MEDIA: Water fog or spray, dry chemical, foam, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Use water, dry chemical, CO₂, or foam, as appropriate for surrounding fire. Use water spray to cool containers. Firefighters should use approved self-contained breathing apparatus and full turn-out (Bunker) gear when fighting fires involving chemicals, to protect against possible toxic fumes or vapors. Cool and use caution when approaching fire-exposed containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURE: Use personal protection recommended in Section 8. Ventilate area thoroughly. Stay upwind. Isolate area from unprotected personnel. Dike to prevent spill from spreading. Dilute and flush to wastewater treatment or absorb with inert material. Do not allow the material to enter streams or waterways. Notify federal, state and local authorities, as applicable.

SECTION 7 - HANDLING AND STORAGE

STORAGE TEMPERATURE: Store above 40°F and below 100°F.

HANDLING AND STORAGE PRECAUTIONS: Use personal protection recommended in Section 8. Do not cut, weld, drill, or otherwise expose empty or full containers to heat, sparks, pilot lights, open flames, static electricity, or other sources of heat or ignition. Open containers slowly in case of pressure accumulation. Bond and ground containers and equipment during transfer. Vapors are/may be heavier than air and may cause ignition away from storage or handling location. Use non-sparking tools. Protect from direct sunlight. Store in dry, cool, ventilated area in tightly closed containers out of the reach of children. Do not store on side. Avoid creasing or impacting container sidewalls. Empty containers may be hazardous. Do not eat, drink, or smoke in chemical use or storage areas. Wash hands after handling and before eating, drinking, or smoking. Do not rub eyes with soiled hands. See Section 10 for metals or other materials to avoid.

SECTION 8 - PERSONAL PROTECTION/EXPOSURE CONTROLS

ENGINEERING CONTROLS: Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

EYE PROTECTION REQUIREMENTS: Use ANSI-approved eye protection (e.g. safety glasses, goggles), as required by work conditions. Use ANSI-approved chemical splash goggles and face shield if splashing may occur.

SKIN PROTECTION REQUIREMENTS: Butyl rubber or nitrile (NBR) rubber gloves. Rubber apron and boots if splash hazard. Wash hands before eating, drinking, or smoking.

RESPIRATORY PROTECTION: In case of mist formation use a respirator. Respirator type: organic vapor cartridge, SCBA or SAR. If respirators are used, a program should be instituted to assure compliance with OSHA standard 29 CFR 1910.134

AIRBORNE EXPOSURE LIMITS

Components	OSHA PEL/TWA	ACGIH TLV/TWA	STEL
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Definitions:

PEL = Permissible Exposure Limit

TLV = Threshold Limit Value

TWA = Time-weighted average (8 hour day)

STEL = Short term exposure limit (15 minutes), no more than 60 min./day

(c) = Ceiling (not to be exceeded under any condition)

(s) = Skin

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Liquid	Solubility in Water:	Complete
Color:	Light blue	Specific Gravity (Water = 1):	1.10 - 1.20
Odor:	Mild	Evaporation Rate (Butyl Acetate = 1):	< 1
Boiling Range:	Not determined	Vapor Pressure (mm Hg):	Not determined
pH:	Not available	Vapor Density (Air = 1):	> 1

SECTION 10 – REACTIVITY

Stability: Stable under anticipated storage and handling conditions.

Hazardous Polymerization: Will not occur.

Incompatibilities (Materials to Avoid): Strong oxidizing agents, strong acids, and strong bases.

Hazardous Decomposition Products: Thermal decomposition will produce carbon dioxide, carbon monoxide, sulfur oxides, and nitrogen oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product not tested as a whole. Refer to Section 3 for potential health effects.

SECTION 12 – ECOLOGICAL INFORMATION

Product not tested as a whole. Refer to Section 6 for information regarding accidental releases. Keep out of trash, water, sewer, and drainage systems, except when used as intended.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle or dispose of contents and empty containers according to federal, state and local regulations. Keep out of trash, water, sewer, and drainage systems.

SECTION 14 - TRANSPORTATION INFORMATION

Not a DOT Hazardous Material.

SECTION 15 - REGULATORY INFORMATION

California Proposition 65 statement: This product does NOT contain chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Does not contain any chemicals subject to the reporting requirements of SARA Title III, Section 313 (40 CFR Part 372) above de minimis concentrations.

Regulated by the Department of Agriculture for storage, use, and leaks or spills.

SECTION 16 - OTHER INFORMATION

This document replaces the 11/14/16 version. All Safety Data Sheets reviewed for composition and regulatory status. Section 3 has been updated.

The information contained in this Safety Data Sheet is based on data available to us from suppliers, and is believed to be true and correct; however, Conklin makes no warranty, express or implied, regarding the accuracy of this data or results obtained from the use of this product. Conklin and its employees assume no responsibility for injury or damage from the use of this product.