Gowan®

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Formulator: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(800) 883-1844

Emergency Phone: (928) 783-3803
For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC®:
Inside the U.S.: (800) 424-9300
Outside the U.S.: (703) 527-3887
For *Medical* Emergency: (888) 478-0798

Product: **Scythe® Herbicide**
EPA Signal Word: Warning **EPA Registration No.:** 10163-325

2. HAZARDS IDENTIFICATION

Physical Properties
Appearance: Colorless to yellow liquid
Odor: Waxy

Hazards of product:
WARNING! May cause severe eye irritation. Causes skin irritation. May cause respiratory tract irritation.

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

Potential Health Effects
Eye Contact: May cause severe eye irritation. May cause corneal injury.
Skin contact: Prolonged or repeated exposure may cause moderate skin irritation.
Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts.
Inhalation: Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.
Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS #
Pelargonic acid (57%)	112-05-0
Solvent refined heavy paraffinic distillate (petroleum) (0.3-10.5%)	64741-88-4
Petroleum distillates, solvent-dewaxed, heavy paraffinic (19.5-29.7%)	64742-65-0

Only the identities of the active ingredient(s) and any *hazardous* inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

4. FIRST AID MEASURES

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.

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.

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 for treatment advice.

4. FIRST AID MEASURES - continued

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induct vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

Note to Physician

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: (888) 478-0798

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. FIRE FIGHTING MEASURES

Appropriate 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.

Fire Fighting Guidance: Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by slushing 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 firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Unusual Fire, Explosion, and Reactivity Hazards: Container may vent and/or rupture due to fire. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

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: Carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Steps to be Taken if Material is released or Spilled: Contain spilled material if possible. Small spills: Absorb with materials such as clay, dirt, sand, or Zorb-all®. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Gowan Company for clean-up assistance.

Personal Precautions: 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.

7. HANDLING AND STORAGE

Handling

General Handling: Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Other precautions: Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

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

Exposure Limits

Component	List	Type	Value
Solvent refined heavy paraffinic distillate (petroleum)	OSHA Table Z-1	PEL	2,000 mg/m^3 500 ppm
Petroleum distillates, solvent-dewaxed, heavy paraffinic	OSHA Table	PEL	2,000 mg/m^3 500 ppm

Manufacturing and Packaging Employees

Eye/Face Use chemical goggles

Skin Protection Wear clean, body-covering clothing

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: chlorinated polyethylene. neoprene, polyethylene, ethyl vinyl alcohol laminate (EVAL), polyvinyl chloride (PVC or vinyl), Viton. Examples of acceptable glove barrier materials include: butyl rubber, natural rubber (latex), nitrile/butadiene rubber (nitrile or NBR), polyvinyl alcohol (PVA).

Respiratory Protection Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge,

Ingestion Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	Colorless to yellow
Odor:	Waxy
Flash Point:	>94°C (>200.1°F) *Closed Cup*
Flammable Limits in Air	Lower: No test date available Upper: No test data available
Autoignition Temperature	No test data available
Vapor Pressure	20 mmHg @ 153°C *Literature*
Boiling Point (760 mmHg):	230-237°C (446 - 459°F) *Literature*
Vapor Density (air = 1)	No test data available
Specific Gravity (H2O =1)	0.9 *Literature*
Freezing Point	No test data available
Melting Point:	12.5° C (54.5° F) *Literature*
Solubility in Water (by weight)	emulsifies in water
pH	3.8 (1% aqueous solution) *Literature*

10. STABILITY AND REACTIVITY

Stability:	Unstable at elevated temperatures
Hazardous Polymerization:	Will not occur
Thermal Decomposition:	Decomposition products depend upon temperature, air supply and the presence of other materials.
Conditions To Avoid:	Exposure to elevated temperatures can cause product to decompose.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion:	LD_{50}, rat	>5,000 mg/kg
Skin Absorption:	LD_{50}, Rabbit	>2,000
Inhalation:	LC_{50}, 4h, Rat	>5.29 mg/l

Repeated Dose Toxicity

For the active ingredient(s): Repeated skin application to laboratory animals did not produce systemic toxicity.

Chronic Toxicity and Carcinogenicity

For the active ingredient(s): Did not cause cancer in animal skin painting studies.

Developmental Toxicity

For the active ingredient(s): Did not cause birth defects or any other fetal effects in laboratory animals.

Genetic Toxicology

For the solvent(s): Genetic toxicity studies on tested components were predominantly negative.

12. ECOLOGICAL INFORMATION

CHEMICAL FATE

Pelargonic acid

Movement & Partitioning

Potential for mobility in soil is very high (Koc between 0 and 50). Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Henry's Law Constant (H): 3.3e-6 4.0e-6 Estimated

Partition coefficient, n-octanol/water (log Pow): 3.42 Measured

Partition coefficient, soil organic carbon/water (Koc): 47.3 Estimated

Bioconcentration Factor (BCF): 3.2; /estunated

Persistence and Degradability

No relevant information found.

Solvent refined heavy paraffinic distillate (petroleum)

Movement & Partitioning

Bioconcentration potential is high (BCF >3000 or Log Pow between 5 and 7).

Partition coefficient, n-octanol/water (log Pow): 3.9 – 6 Estimated

Persistence and Degradability

Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for biodegradability. Material is inherently biodegradable (reaches >20% biodegradation in OECD test(s) for inherent biodegradability).

Petroleum distillates, solvent-dewaxed, heavy paraffinic

Movement & Partitioning

Bioconcentration potential is high (BCF >3000 or Log Pow between 5 and 7).

Partition coefficient, n-octanol/water (log Pow): 3.9 – 6 Estimated

Persistence and Degradability

Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for biodegradability. Material is inherently biodegradable (reaches >20% biodegradation in OECD test(s) for inherent biodegradability).

ECOTOXICITY

Pelargonic acid

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, rainbow trout (*Oncorhynchus mykiss*), 96 h: 61-110 mg/l

LC50, fathead minnow (*Pimephales promelas*), 96 h: 93 - 115 mg/l

LC50, clawed toad (*Xenopus laevis*), 96 h: 32.7 - 36 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, water flea (*Daphnia magna*), 48 h, immobilization: 58 – 108 mg/l

12. ECOLOGICAL INFORMATION - continued

Solvent refined heavy paraffinic distillate (petroleum)

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, rainbow trout (*Oncorhynchus mykiss*), 96 h: >1,000 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, water flea (*Daphnia magna*), 48 h, immobilization: >1,000 mg/l

Aquatic Plant Toxicity

EC50, green alga (*Selenastrum capricornutum*), biomass growth inhibition, 96 h: >1,000 mg/l

Petroleum distillates, solvent-dewaxed, heavy paraffinic

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, rainbow trout (*Oncorhynchus mykiss*), 96 h: >1,000 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, water flea (*Daphnia magna*), 48 h, immobilization: >1,000 mg/l

Aquatic Plant Toxicity

EC50, green alga (*Selenastrum capricornutum*), biomass growth inhibition, 96 h: >1,000 mg/l

13. DISPOSAL CONSIDERATION

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of the 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 the applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. TRANSPORT INFORMATION

DOT Classification

Not regulated

IMDG Classification

Not regulated

IATA Classification

Not regulated

15. REGULATORY INFORMATION

SARA Title III Classification Sections 311 and 312

Immediate (acute) health hazard Yes

Delayed (chronic) health hazard No

Section 313 chemical(s): To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this 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.

Component	CAS No.	Amount
Solvent refined heavy paraffinic distillate (petroleum)	64741-88-4	≥0.3 - ≤10.5%
Paraffinic distillate	64742-65-0	≥19.5 - ≤29.7%

Proposition 65

Not applicable

CERCLA Reportable Quantity (RQ)

Not applicable

15. REGULATORY INFORMATION - continued

RCRA Classification

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.

TSCA Status

Exempt from TSCA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health:	2
Flammability:	1
Reactivity:	0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Prepared By:

Gowan Company
(800) 883-1844

Notice: The information and recommendations contained herein are provided in good faith and are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.