



Safety Data Sheet

Report Date 03-Feb-16

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1. Identification

Product Name : SHOWDOWN
Synonyms : None
Product Use : Mixed salts of Glyphosate
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Eye Irritation : Causes eye irritation
Acute Toxicity Oral : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Acute Toxicity Dermal : Not classified as hazardous under 29 CFR 1910.1200 (2012)

Hazard Categories : Eye Irritation-2B; Inhalation Toxicity-4

Hazard Statement : Causes eye irritation
Harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Glyphosate Isopropylamine Salt: N-(phosphonomethyl) glycine, Isopropylamine salt	38641-94-0	36.4-38.7
Glyphosate Ammonium Salt: N-(phosphonomethyl) glycine, Monoammonium salt	114370-14-8	3.3-3.6
Other ingredients	Trade Secret	Balance

4. First Aid Measures

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

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.

Inhalation : 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.

Ingestion : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.

Indication of Immediate Medical Attention and Special Treatment Needed : In the event of an adverse response, treatment should be directed toward control of the symptoms.

5. Fire Fighting Measures



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- Extinguishing Media** : For large fires: use foam or water spray. For small fires: use dry chemical or carbon dioxide.
- Specific Hazards Arising from the Chemical** : May produce gases such as oxides of carbon, nitrogen and phosphorus. This product reacts with galvanized steel or unlined steel (except stainless) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Dike area to prevent runoff and contamination of water sources, especially if water is used to extinguish. Dispose of fire control water later.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may require removal of topsoil.
- Methods and Materials for Containment and Cleanup** : Pump any free liquid into an appropriate sealed container. Dike spill using absorbent or impervious materials such as earth, sand, or clay. Collect and contain contaminated absorbent and diking materials for disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then, wash thoroughly and put on clean clothing. Use only stainless steel, aluminum, fiberglass, plastic or plastic-lined containers to mix, store and apply spray solutions of this product. Do not use galvanized steel or unlined steel, except stainless steel.
- Conditions for Safe Storage** : Keep container closed to prevent spills and contamination. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No TLV or PEL established for ingredients in this mixture.
- Appropriate Engineering Controls** : Use local exhaust at the point of generation.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Pale yellow liquid with slight odor.
- Flash Point, °F** : Aqueous salt based composition
- Boiling Point, °F** : No data available
- Melting Point(Freezing point), °C** : No data available
- Vapor Pressure, mm Hg @ 20 °C** : No data available
- Vapor Density** : No data available
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.159



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Evaporation Rate(Butyl Acetate = 1) : No data available
Octanol/Water Partition Coefficient : No data available
pH : 5.5 (1% w/w solution in DI water)
Flammable Limits (approximate volume % in air) : No data available
Auto-ignition Temperature : No information found
Decomposition temperature : No data available

10. Stability and Reactivity

Reactivity : Not reactive
Chemical Stability : Stable
Hazardous Decomposition Products : May produce gases such as oxides of carbon, nitrogen and phosphorous under fire conditions.
Hazardous Polymerization : Will not occur
Conditions to Avoid : Store above 10 Degrees F. to keep product from crystallizing.
Incompatible Materials : Strong oxidizing agents: bases and acids. This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas.

11. Toxicological Information

Acute Toxicity (Oral LD50) : >5,000 mg/kg (rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
Acute Toxicity (Dermal LD50) : >5,000 mg/kg (rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
Acute Toxicity Inhalation LC50 : >2.12 mg/L (rat), 4 hour. Harmful if inhaled.
Likely Routes of Exposure : Eye, inhalation
Skin Irritation : Not classified as hazardous under 29 CFR 1910.1200 (2012).
Eye Irritation : Causes eye irritation.
Skin Sensitization : Not a contact sensitizer in guinea pigs following repeated skin exposure.
Carcinogenic : IARC: glyphosate is a probable human carcinogen (2A) based on limited human evidence.
Chronic Effects : Prolonged overexposure to glyphosate may cause effects to the liver.
Other Hazards : CA Prop 65 Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (ethylene oxide, acetaldehyde, 1,4-dioxane).

12. Ecological Information

Ecotoxicity : Glyphosate IPA: 96-hour LC50, Rainbow Trout>1,000 mg/L; 48-hour EC50 Daphnia=930 mg/L; 72-hour EC50 Algae=166 mg/L. Glyphosate Acid: 96-hour LC50, Bluegill=120 mg/L; 48-hour EC50 Daphnia=780 mg/L; 72-hour EC50 Algae=450 mg/L
Persistence and Degradability : Glyphosate is readily degraded by soil microbes to aminomethyl phosphonic acid (AMPA) which is further degraded to carbon dioxide.
Bioaccumulative Potential : Low potential for bioconcentration in aquatic organisms.
Mobility in Soil : Expected to be immobile in soil.
Other Adverse Effects : None currently known

13. Disposal Considerations



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Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

UN Proper Shipping Name : Not regulated by DOT, IATA, or IMDG.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : No information found
Transport in Bulk : No information found
Special Precautions for Transportation : No information found
Freight Classification : Pesticides, NOI, Herbicides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating

Health: 2 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No)

Immediate(Acute) Health: Y
Delayed (Chronic) Health: Y
Sudden Release of Pressure: N
Fire: N
Reactive: N

FIFRA Information : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling 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 Registration Number : 71368-25-5905
FIFRA Signal Word : Caution
FIFRA Label Statement : Keep out of reach of children.
FIFRA Label Statement : Causes moderate eye irritation.
FIFRA Label Statement : Harmful if swallowed or inhaled.
FIFRA Label Statement : Avoid contact with eyes, skin or clothing.
FIFRA Label Statement : Avoid breathing spray mist.
FIFRA Label Statement : Wash thoroughly with soap and water after handling.
FIFRA Label Statement : Remove contaminated clothing and wash clothing before reuse.

16. Other Information

Data of Preparation/Revision : 03-February-2016