



Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: INFERNO™ WDG Herbicide
PMRA REGISTRATION NUMBER: 30838
SYNONYM(S): None

| <u>COMPANY</u> |
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| Arysta LifeScience North America, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513 |

| <u>EMERGENCY TELEPHONE NUMBERS</u> | |
|--|---|
| HEALTH EMERGENCY: 1-866-303-6952, or 1-651-632-8946 | SPILL EMERGENCY: 1-800-424-9300, or 1-703-527-3887 |

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| Active Ingredient(s)/ Hazardous Inert Ingredient(s) | CAS # | Exposure Limits* | % Weight | % Volume |
|--|-------------|---|----------------|-------------|
| Tribenuron-methyl | 101200-48-0 | TWA^a OSHA PEL ^b : None ACGIH TLV ^c : None NIOSH REL ^d : None | 60.0- 100.0 | NDA |
| Inert Ingredients | Proprietary | TWA^a OSHA PEL ^b : None ACGIH TLV ^c : None NIOSH REL ^d : None | 1.0-15.0 | NDA |
| Calcium Carbonate | 1317-65-3 | TWA^a OSHA PEL ^b : 15 mg/m ³ (total dust) 5 mg/m ³ (res. fraction) ACGIH TLV ^c : 10 mg/m ³ NIOSH REL ^d : 10 mg/m ³ | 1.0-5.0 | NDA |

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.

*Source: *Guide to Occupational Exposure Values 2008*, published by ACGIH

^a**TWA**: Time-weighted average exposure concentration for a conventional 8-hour (TLV, PEL) or up to a 10-hour (REL) workday and a 40-hour workweek.

^b**OSHA PEL**: Occupational Safety and Health Administration Permissible Exposure Limits.

^c**ACGIH TLV**: American Conference of Governmental Industrial Hygienists, Inc., Threshold Limit Values.

^d**NIOSH REL**: National Institute for Occupational Safety and Health Recommended Exposure Limits.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING:

- **MAY CAUSE EYE AND SKIN IRRITATION**
- **MAY CAUSE IRRITATION TO THE MOUTH, THROAT AND STOMACH**
- **CAUSES RESPIRATORY IRRITATION**
- **MAY BE DANGEROUS FOR THE ENVIRONMENT**
- **THIS PRODUCT IS HARMFUL TO PLANTS**

Acute Health Hazards

Inhalation: Dusts may cause moderate to severe irritation of the nose, throat and upper respiratory tract. Symptoms may include sore throat, coughing and shortness of breath.

Skin: Direct skin contact may cause mild to moderate irritation. Prolonged contact, such as when material is trapped against the skin under clothing or jewelry, could result in more significant irritation.

Eye: Direct eye contact may cause irritation and possible mechanical damage if not promptly removed.

Ingestion: Harmful if swallowed. May cause irritation to the mouth, throat and stomach. Symptoms may include stomach cramps, nausea, vomiting and diarrhea.

SECTION 4: FIRST AID MEASURES

Inhalation: Immediately remove person to fresh air. If breathing has stopped, begin artificial respiration. Obtain medical attention.

Skin: Immediately remove contaminated clothing and shoes. Flush skin with running water for at least 20 minutes. Obtain medical attention if irritation persists. Thoroughly clean contaminated clothing before re-use.

Eyes: Immediately flush eyes with running water for at least 20 minutes. Obtain medical attention or advice.

Ingestion: If ingested, do not induce vomiting. Have person rinse mouth with water, and then give one to two glasses of water to drink. Never give anything by mouth if victim is unconscious or convulsing. Obtain medical attention immediately.

Notes to Physician: No specific antidote is available. Treat the patient symptomatically.

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SECTION 5: FIRE FIGHTING MEASURES

| | | |
|---|----------------------|---|
| Flammable Limits in Air (% by volume): | | |
| | Upper: | NA |
| | Lower: | NA |
| Flash Point: | | NA |
| | Method Used: | NA |
| Autoignition Temperature: | | NDA |
| LEL/UEL: | | NDA |
| NFPA Hazard Classification: | | |
| | Health: | 1 |
| | Flammability: | 1 |
| | Reactivity: | 0 |
| | Other: | None |
| Extinguishing Media: | | Use dry chemical, carbon dioxide, water spray or foam. Do not use water jet, as this may spread the fire. |
| Special Fire Fighting Procedures: | | Fire fighters should wear proper chemically protective equipment and self-contained breathing apparatus operated in positive pressure mode. Move containers from fire area if it can be done without risk. Dike area to prevent run-off. Water spray may be useful in cooling equipment and containers. |
| Hazardous Combustion Products: | | Carbon oxides, nitrogen oxides, sulfur oxides, calcium oxide and other irritating fumes and smoke. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PHONE NUMBERS

Exposure Calls (PROSAR): 1-866-303-6952 or 1-651-632-8946 (International)

Spill Calls (CHEMTREC): 1-800-424-9300 or 1-703-527-3887

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Refer to Section 8 for additional information on acceptable protective equipment. Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. Dike area to prevent entry into the environment. Eliminate all sources of heat, sparks and flame. Ventilate area of release. Stop leak if you can do so without risk. Use non-sparking tools during the clean-up process. Contain spilled material with inert, non-contaminated absorbent material, such as universal binder, Fuller’s earth or other absorbent clays. Scoop up and place contaminated absorbent material into suitable containers for later disposal. Spills in water should be contained as much as possible by isolation of the contaminated water. Notify the appropriate authorities.

In case of a transportation accident, in the United States contact CHEMTREC at 1-800-424-9300 or international at 1-703-527-3887. If a spill/release in excess of EPA reportable quantity is made into the environment in the United States, immediately notify the national response center (phone: 1-800-424-8002).

EPA/CERCLA Reportable quantity: None reported.

SECTION 7: HANDLING AND STORAGE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Read entire label. Use strictly in accordance with label precautionary statements and directions.

HANDLING PROCEDURES: KEEP OUT OF REACH OF CHILDREN AND ANIMALS

This material is a harmful solid. Wear full chemically protective equipment during handling. Use only in well ventilated area. Avoid all contact with eyes, skin and clothing. Do not inhale vapors or dusts. Keep away from incompatibles. Use caution when opening containers. Keep container tightly closed when not in

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use. Wash thoroughly after handling.

STORING PROCEDURES: Store in a cool, dry, well ventilated area away from incompatibles. Protect container from physical damage. No smoking in the area. Inspect containers periodically for damage or leaks. Always keep in containers made of the same materials as the supply container.

MIN/MAX STORAGE: Min Temp: Not determined; Max Temp: Not determined.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation and engineering controls: If handled indoors, provide mechanical exhaust ventilation to keep concentrations below specified TLV's and PEL's.

Respiratory protection: Respiratory protection is required if airborne concentrations exceed permissible exposure levels. Wear respirators with particle filters, which are jointly approved by the MSHA and NIOSH. Advice should be sought from respiratory protection specialists.

Protective gloves: Wear impervious chemical gloves. Small tears in the gloves and cross-contamination can easily occur. Change gloves frequently and limit manual work. Advice should be sought from glove suppliers.

Eye protection: Wear safety glasses with side shields or chemical splash goggles to prevent dusts from entering the eyes.

Other protective equipment: Wear chemically resistant coveralls, to prevent skin contact. An eyewash station and safety shower should be made available in the immediate working area. Other protective equipment may be required depending on exposure and on workplace standards.

General hygiene considerations: Do not breathe vapors or dusts. Avoid contact with eyes, skin and clothing. Before removing gloves, wash them with soap and water. Always wash hands, face and arms with soap and water before smoking, eating or drinking. After work, take off all protective equipment, work clothes and shoes, and wash with soap and water. Respirator should be cleaned and filter replaced according to manufacturer's instructions. Wear only clean, uncontaminated clothes when leaving place of work.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance: | beige to tan granule |
| Odor: | Odorless |
| Physical State: | Granule |
| pH: | 6.89 |
| Boiling Point: | NDA |
| Melting Point: | NDA |
| Freezing Point | NDA |
| Vapor Pressure: | Tribenuron-Methyl Technical : 4.0 x 10 ⁻⁹ mm Hg @ 25C |
| Vapor Density: | NDA |
| Specific Gravity: | 0.5117 (water = 1) |
| Evaporation Rate: | NA |
| Solubility: | NDA |
| Percent Solids by Weight: | NDA |
| Percent Volatile: | NDA |
| Volatile Organic Compounds (VOC): | NDA |
| Viscosity: | NDA |

SECTION 10: STABILITY AND REACTIVITY

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| Chemical Stability: | Stable under recommended storage and handling conditions prescribed. |
| Hazardous Polymerization: | Will not occur |
| Flash Point: | NA |
| Flammable Point: | NDA |
| Conditions to Avoid: | Avoid heat, flame and other sources of ignition |
| Incompatibility With Other Materials: | Avoid contact with oxidizing agents, acids, fluorine, magnesium |
| Hazardous Decomposition Products: | Carbon oxides, nitrogen oxides, sulfur oxides, calcium oxide and other irritating fumes and smoke. |

SECTION 11: TOXICOLOGICAL INFORMATION

Acute (product specific information):

Eye and Skin: Moderately irritating to eyes and moderately irritating to the skin (rabbits). Not a contact sensitizer (guinea pig).

Dermal Toxicity: The dermal LD₅₀ in rats is > 2,000 mg/kg.

Oral Toxicity: The oral LD₅₀ in rats is > 2,000 mg/kg.

Inhalation Toxicity: The 4-hour LC₅₀ in rats is > 5.18 mg/L.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological Information: There is no available data on the product itself. However, the product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. This product is an herbicide. The active ingredient, Tribenuron-Methyl Technical, is considered to be toxic to many plants, and non-toxic to fish, aquatic invertebrates, soil micro- and macro-organisms, birds, mammals, and insects. The acute toxicity of Tribenuron-Methyl Technical is measured to be:

Fish 96 hr LC₅₀, Rainbow Trout (*Oncorhynchus mykiss*) = >1000ppm.
 Invertebrates-96 hr EC₅₀, Water Flea (*Daphnia magna*) = >720 ppm.
 Bees 48 hr LD₅₀, Bees = >100 µg/bee.
 Plants 14 day EC₅₀, Duckweed (*Lemna minor*) = 9.9 µg/L
 72 hr EC₅₀, Green Algae (*Selenastrum capricornutum*) = 8.0 mg/L

Mobility: The active ingredient, Tribenuron-Methyl Technical, is expected to have high mobility in soil.

Persistence and degradability: The active ingredient, Tribenuron-Methyl Technical, is not persistent in the environment. Degradation half-lives vary with circumstances, from a few days to a few weeks in aerobic water and soil. Its metabolites are considered as persistent.

Bioaccumulative potential: The active ingredient, Tribenuron-Methyl Technical, may be considered to have a low bioconcentration potential. The bioconcentration factor is 3.

SECTION 13: DISPOSAL CONSIDERATIONS

Handling for disposal: Handle waste according to recommendations in Section 7.

Methods of disposal: Do not contaminate water, foodstuffs, feed or seed by storage or disposal. For disposable containers, triple rinse (or equivalent) containers, and add rinse material to disposal tank. Follow any additional local, state or federal requirements for cleaning containers prior to disposal. Make the empty, rinsed container unsuitable for further use by puncturing. Dispose of in compliance with all Federal, State, Provincial and local regulations.

RCRA: If this product, as supplied, becomes a waste, it may meet the criteria of a hazardous waste as defined

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under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANSPORT INFORMATION

US 49CFR Shipping Information :

Not regulated for transport by ground within the continental United States.

Canadian Transportation of Dangerous Goods Regulations (TDGR) Shipping Information :

Not regulated for transport by ground within Canada.

SECTION 15: REGULATORY INFORMATION

Canadian Information:

WHMIS information: This product is a Pest Control Product and is not regulated as a Controlled Product under the Hazardous Products Act (HPA). However, for reference purposes only, this product would have the following WHMIS Classification if it were regulated as a Controlled Product under the HPA; **Class D2B** (*Materials causing other toxic effects, Toxic Material*)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

US Federal Information:

EPA/CERCLA Reportable Quantity (RQ): None reported.

SARA TITLE III:

Section 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Section 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to SARA notification requirements, since it contains Tribenuron-Methyl Technical, a Toxic Chemical constituent above the *de minimus* concentration.

US State Right to Know Laws:

California Proposition 65 Information: To the best of our knowledge, this product is not known to contain any chemicals known to the State of California to cause cancer and/or reproductive harm.

Pest Control Products (PCP) Act Registrations No.: 30838

SECTION 16: OTHER INFORMATION

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|--------------------------|-----------------|
| Reason for issue: | New MSDS |
| Prepared by: | Ashley R. Brown |
| Issue date: | 2/28/2013 |
| Supersedes date: | NA |
| MSDS number: | 00620 |

The information in this MSDS is based on data available to us as of the issue date given herein, and believed to be correct. Contact Arysta LifeScience North America LLC at (919) 678-4900 to determine if additional data and information have become available since the issue date.

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