



MATERIAL SAFETY DATA SHEET

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Issue Date:

1- Chemical Product Information and Company Identification.

Product Name:	: Torsemide.
Synonym:	: N-(Isopropylcarbamoyl)-4-(m-tolylamino)pyridine-3-sulfonamide.
Product code:	: BS14430.
CAS Number:	: 56211-40-6.
Company Name:	: Briti Scientific.
Company Address:	: Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055.
	Telangana, India.

Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
56211-40-6.	Demadex.	$C_{16}H_{20}N_4O_3S.$

Section 3- Hazards Identification.

Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Acute toxicity, Oral (Category 4), H302 Acute aquatic toxicity (Category 1), H400 Chronic aquatic toxicity (Category 1), H410 **Label Elements**



Hazard statement(s)

H302 Harmful if swallowed. H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. P330 Rinse mouth.



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P391 Collect spillage. P501 Dispose of contents/ container to an approved waste disposal plant. Hazards not otherwise classified (HNOC) None identified

Section 4- First Aid Measures.

Eye Contact: Remove any contact lenses, locate eye-wash station, and flush eyes immediately with large amounts of water. Separate eyelids with fingers to ensure adequate flushing. Promptly call a physician.

Skin Contact: Rinse skin thoroughly with large amounts of water. Remove contaminated clothing and shoes and call a physician.

Inhalation: Immediately relocate self or casualty to fresh air. If breathing is difficult, give cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

Ingestion: Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects: The most important known symptoms and effects are described in the labelling.

Notes to Physician: Treat symptomatically

Section 5- Fire Fighting Measures.

Suitable Extinguishing Media: Use water spray, dry chemical, foam, and carbon dioxide fire extinguisher.

Unsuitable Extinguishing Media: No information available. Flash Point: No information available. Method -No information available. **Autoignition Temperature:** No information available. **Explosion Limits** Upper No data available Lower No data available Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available Specific Hazards Arising from the Chemical: During combustion, may emit irritant fumes. **Hazardous Combustion Products** Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2) **Protective Equipment and Precautions for Firefighters** Wear self-contained breathing apparatus and protective clothing.

Section 6- Accidental Release Measures.

Personal Precautions: Use full personal protective equipment. Avoid breathing vapors, mist, dust or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to protective measures listed in sections 8.



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Environmental Precautions: Try to prevent further leakage or spillage. Keep the product away from drains or water courses.

Methods for Containment and Clean Up:

Absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders); Decontaminate surfaces and equipment by scrubbing with alcohol; Dispose of contaminated material according to Section 13.

Section 7- Handling and Storage.

Handling: Avoid inhalation, contact with eyes and skin. Avoid dust and aerosol formation. Use only in areas with appropriate exhaust ventilation.

Storage: Keep container tightly sealed in cool, well-ventilated area. Keep away from direct sunlight and sources of ignition. Store at -20°C (powder) or -80°C (in solvent).

Section 8- Exposure Control/Personal Protection.

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures: Ensure adequate ventilation. Provide accessible safety shower and eye wash station.

Personal Protective Equipment

Eye/face Protection: Safety goggles with side-shields.

Hand protection: Protective gloves.

Skin and body protection: Impervious clothing.

Respiratory Protection: Suitable respirator.

Environmental exposure controls: Keep the product away from drains, water courses or the soil. Clean spillages in a safe way as soon as possible.

Section 9- Physical and Chemical Properties.

Appearance:	White to Almost white powder.	
Odor:	No information available.	
Odor Threshold:	No information available.	
pH:	No information available.	
Melting Point/Range:	161 °C.	
Boiling Point/Range:	No information available.	
Flash Point:	No information available.	
Evaporation Rate:	No information available.	
Flammability (solid,gas):	Not applicable.	
Flammability or explosive limits:		
Upper	No information available.	
Lower	No information available.	



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Vapor Pressure: No information available. **Density:** 1.283 g/cm^3 . Solubility: Soluble in DMSO. Partition coefficient; n-octanol/water: No data available. **Autoignition Temperature:** No data available. Decomposition Temperature: No data available. No data available. Viscosity: Molecular formula: C₁₆H₂₀N₄O₃S. **Molecular Weight** 348.42 g/mol.

Section 10- Stability and Reactivity.

Reactive Hazard: None known, based on information available **Stability**: Stable under normal conditions.

Conditions to Avoid: Incompatible products. Keep away from open flames, hot surfaces and sources of ignition

Incompatible Materials: Strong acids/alkalis, strong oxidising/reducing agents.

Hazardous Decomposition Products: Under fire conditions, may decompose and emit toxic fumes. Other decomposition products - no data available. Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: None under normal processing.

Section 11- Toxicological Information.

Acute Toxicity

Product Information: No acute toxicity information is available for this product.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Torsemide	LD50 Rat > 5000 mg/kg	Not listed	Not listed	
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Toxicologically Synergistic Products: No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposureIrritation:No information available.

Sensitization: No information available.

Mutagenic Effects: Chromosome aberration

Result: Negative.

In vitro sister chromatid exchange (human lymphocytes)

Result: Negative.

Reproductive Effects: No information available.

Developmental Effects: No information available. **Teratogenicity:** No information available.

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STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard: No information available.

Symptoms / effects, both acute and delayed: Gastrointestinal disturbances. Urinary problems, Dizziness, Hearing problems, Impotence, Black or bloody stools, Headache, Rash, Dry mouth, Irregular heartbeat, Thirst, Mental status changes, Muscle pain, Weakness.

Endocrine Disruptor Information: No information available.

Other Adverse Effects: The toxicological properties have not been fully investigated.

Section 12- Ecological Information.

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability: No information available

Bioaccumulation/ Accumulation: No information available.

Mobility: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13- Disposal Considerations.

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14- Transport Information.

DOT:	Not regulated
TDG:	Not regulated
IATA:	Not regulated
IMDG/IMO:	Not regulated

Section 15- Regulatory Information.

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710) X - Listed '-' - Not Listed TSCA 12(b) - Notices of Export: Not applicable. **U.S. Federal Regulations** SARA 313: Not applicable.

SARA 311/312 Hazard Categories See section 2 for more information.



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CWA (Clean Water Act): Not applicable. Clean Air Act: Not applicable. **OSHA** - Occupational Safety and Health Administration: Not applicable. CERCLA: Not applicable. California Proposition 65: This product does not contain any Proposition 65 chemicals.

Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.



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