

MATERIAL SAFETY DATA SHEET

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Hazardous according to the criteria of NOHSC Australia.

I IDENTIFICATION

Product Name: Exporsan Selective Turf Herbicide

Other Names: Proper Shipping Name is ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC

Product Code: None.

UN No: 3018

Hazchem Code: 2X

Dangerous Goods Class: 6.1 Toxic Substances.

Sub Risk Class: None allocated.

Packaging Group: III

Most EPGs may now be substituted by the Initial Emergency Response Guide, available from Standards Australia.

Poison Schedule: S6

Chemical Family: Blend of ingredients (see below).

Uses: Agricultural herbicide for use as directed on the product label.

Physical Appearance & Properties

Appearance & Odour: Brown coloured liquid. Aromatic hydrocarbon odour.

Melting/softening point: No specific data. Liquid at normal temperatures.

Boiling point and vapour pressure: 184°C at 100kPa

Volatile materials: No specific data. Expected to be low at 100°C.

Flashpoint: 67°C

Flammability limits: Upper Value: 7.0% : Lower Value: 0.6%

Specific gravity: 1.05

Solubility in water: Emulsifiable.

Corrosiveness: Not corrosive.

Decomposition Temperature: Bensulide decomposes about 155°C

Vapour Pressure: No data.

Ingredients

Chemical Entity	CAS No	Proportion, %	Worksafe Exposure Limits	
			TWA, mg/m ³	STEL, mg/m ³
Bensulide	741-58-2	50 *	not set	not set
Aromatic hydrocarbons	64742-94-5	47 *	not set	not set
non hazardous emulsifiers	secret	to 100	not set	not set

* These are expressed as wt/volume

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

II HEALTH HAZARD DATA

Health Effects:

No specific data is available for the product for chronic exposure symptoms. The ingredients are not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995), nor in NOHSC's "List of Designated Hazardous Substances" (April 1999). Chronic exposure to organophosphates typically leads to loss of appetite, weakness, weight loss, and general feeling of sickness. Cholinesterase inhibitors are typically rapidly metabolised and excreted, and as a result, do not accumulate in the body. However, repeated minor exposure may have a cumulative poisoning effect because of the chemical nature of the poisoning.

Acute Effects:

Acute overexposure to organophosphates degrades acetylcholinesterase in the tissues. This typically leads to headache, dizziness, weakness, shaking, nausea, stomach cramps, diarrhoea and sweating. Solvent vapour may be irritating to the eyes and the respiratory tract if vapour concentration is above the recommended exposure guideline (100 ppm, TWA).

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Swallowed: Data suggests that this product is toxic if swallowed. Ingestion of small quantities may cause harm and larger quantities may lead to death.

Eye: Eye contact with this product is considered unlikely to cause any significant irritation or pain.

Skin: Data suggests that this product may be absorbed through the skin and be harmful by skin absorption. Major skin exposure may lead to health problems.

Inhalation: Data suggests that this product is harmful if inhaled. Minor or short term exposure may lead to short term health problems, although long term exposure may lead to permanent health problems.

For Bensulide:

LD₅₀ Oral (Rat) = 360 (male), 270 (female)mg/kg

LD₅₀ Dermal (Rat) >2000mg/kg

LC₅₀ Inhalation (Rat) >1.75mg/L/4hr

First Aid:

Atropine tablets 0.6mg should be available in the area where this product is used, or in a nearby unlocked medicine cabinet. Safety deluge showers should be provided where this product is being used.

If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 13 1126 from anywhere in Australia. If possible have this MSDS or product label with you.

Swallowed: If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs - if poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly. Seek medical attention.

Eyes: If product gets in eyes, wash eyes to remove material. No further measures should normally be required.

Skin: If anticholinesterase poisoning develops, see above for instructions and act on them immediately. If product gets on skin, immediately remove contaminated clothing and wash skin thoroughly with soap and water to remove material. If you begin to feel unwell, seek medical attention.

Inhalation: If anticholinesterase poisoning develops, see above for instructions and act on them immediately. If vapours or mists have been inhaled, and irritation or unusual symptoms have developed, remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.

Advice to Doctor: This product contains a cholinesterase inhibitor. Atropine treatment may be required or treat with up to 10mg of IV diazepam. Curare therapy is contraindicated. Treat pulmonary pneumonitis secondary to pulmonary oedema. Do not give adrenergic amines, aminophylline, succinylcholine, phenothiazines or reserpine alkaloids or oils.

III PRECAUTIONS FOR USE

Risk Phrases are: R25, R14/15. Toxic if swallowed. Harmful by inhalation and in contact with skin.

Exposure Standards:

A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by NOHSC Australia for any of the major ingredients in this product. There is a blanket limit of 10mg/m³ for dusts or mists when limits have not otherwise been established. The ADI (Acceptable Daily Intake) for Bensulide is set at 0.04mg/kg/day. The corresponding NOEL (No-observable-effect-level) is set at 4mg/kg/day. Values taken from Australian ADI List, January 2001.

Engineering Controls:

In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify the process or environment to reduce the problem.

Personal Protection:

Product is harmful by skin absorption, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect.

Respiratory Protection: If there is a significant chance of vapours or mists accumulating in the area where this product is being used, a mask or respirator should be used. For help in selecting suitable equipment, consult AS/NZS 1715.

Protective Gloves: Impermeable protective elbow-length PVC gloves should be worn when you are using this product, since absorption through the skin is harmful. For help in selecting suitable equipment, consult AS 2161.

Eye Protection: Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear. Consult AS1336 and AS/NZS 1337 for advice on Industrial Eye Protection.

Clothing: When opening the container of concentrate and preparing spray, and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and washable hat, and face shield or goggles. If contaminated, laundry should be advised of the nature of the contamination, or, preferably, clothing should be destroyed. Consult AS2919 for advice on Industrial Clothing.

Safety Boots: Leather may be permeable to the concentrate, so wear rubber or plastic boots. Consult AS/NZS2210 for advice on Occupational Protective Footwear.

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If product or spray mix gets on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

IV SAFE HANDLING INFORMATION

Safety Phrases are: S20, S24, S38. When using, do not eat or drink. Avoid contact with skin. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage & Transport

This product is classed as UN3018, Dangerous Goods Class 6.1 Toxic Substances. Proper Shipping name is ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC. Class 6 Toxic Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids where the Flammable Liquid is nitromethane), 5.1 (Oxidising Agents where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides where the Toxic Substances are Fire Risk Substances), 8 (Corrosive Substances where the Toxic Substances are cyanides and the Corrosives are acids), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes, 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Toxic Gases), 3 (Flammable liquids, except where the flammable liquid is nitromethane), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents except where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides except where the Toxic Substances are Fire Risk Substances), 7 (Radioactive Substances), 8 (Corrosive Substances except where the Toxic Substances are cyanides and the Corrosives are acids), 9 (Miscellaneous Dangerous Goods)

This product is a S6 Poison. Observe all relevant regulations regarding sale, transport and storage of this class of product. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure that the product does not come into contact with substances listed under "Materials to avoid" below.

Spills & Disposals

In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including face mask, face shield, gauntlets and self contained breathing apparatus. See above under Personal Protection regarding Australian Standards relating to personal protective equipment. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. Avoid using sawdust or other combustible material. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Breakdown products still have significant toxicity. Bury these wastes in an approved landfill. On-site disposal is not acceptable. For minor contamination of soil, bensulide has a field half-life of 120 days under normal conditions of temperature and moisture. Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local authorities.

If there is any conflict between this MSDS and the label, instructions on the label prevail. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Fire & Explosion Hazard

This product is classified as a C1 combustible product. There is a slight risk of an explosion from this product if it is involved in a fire.

Flashpoint: 67°C

Flammability limits: Upper Value: 7.0% : Lower Value: 0.6% (solvent)

Extinguishing Media: carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires.

Special Fire Fighting procedures: If a significant quantity of this product is involved in a fire, call the fire brigade. Immediately evacuate the area of unnecessary personnel. When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and self contained breathing apparatus. All skin areas should be covered. Ensure that no spillage enters drains or water courses.

Unusual Fire & Explosion Hazards: Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.

Stability: This product is unlikely to spontaneously decompose.

Polymerisation: This product is unlikely to spontaneously polymerise.

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Decomposition Products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Oxides of phosphorus and other phosphorus compounds. Water.

Materials to avoid: strong acids, strong bases, strong oxidising agents. The active ingredient is corrosive to copper.

Note: This product is classed as a Dangerous Good. We suggest you consult your state's Dangerous Goods laws in order to clarify your obligations regarding the storage of this product.

V OTHER INFORMATION

This MSDS is prepared in accord with the Worksafe Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets", 1994.

Contact Points:

		AUSTRALIA
Police and Fire Brigade:	Dial	000
If ineffective:	Dial	1100 (Exchange)
For emergency response: B/H	Dial	1800 631 008
For emergency response: A/H	Dial	1800 033 498
National Poisons Information Centre:	Dial	13 1126 (from anywhere in Australia)

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER SHOULD READ THIS MSDS AND CONSIDER THE INFORMATION IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE INCLUDING IN CONJUNCTION WITH OTHER PRODUCTS. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY. THE RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

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