




Material Safety Data Sheet

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Revision Number 1

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tr> <td>Health Hazard</td> <td>2*</td> </tr> <tr> <td>Fire Hazard</td> <td>4</td> </tr> <tr> <td>Reactivity</td> <td>1</td> </tr> </table>	Health Hazard	2*	Fire Hazard	4	Reactivity	1		
Health Hazard	2*								
Fire Hazard	4								
Reactivity	1								

Identification

Product Name: Black Waterfall Foam

Recommended Use: Waterfall Construction

Supplier Address: Clearpond
4 Kingscote street,
Kewdale WA 6105
Phone: 1800 222 010
www.clearpond.com.au

Emergency Telephone Number: Poisons Information Australia 13 11 26

Hazards Identification

WARNING!

Emergency Overview		
Contents under pressure.		
Flammable gas.		
Harmful by inhalation, in contact with skin and if swallowed.		
May cause allergic respiratory reaction.		
May cause sensitization by skin contact		
Irritating to eyes, respiratory system and skin.		
Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.		
May cause drowsiness and dizziness.		
May cause adverse cardiovascular effects		
Appearance	Black	Physical State Liquid Aerosol
Odour	Faint hydrocarbon	

Potential Health Effects

Principle Routes of Exposure

Acute Toxicity	Inhalation, Skin contact, Eye contact
Eyes	Irritating to eyes, Risk of serious damage to eyes.
Skin	Harmful in contact with skin. Will bond to skin. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Inhalation	Harmful by inhalation. Irritating to respiratory system. May cause allergic respiratory reaction. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Inhalation of vapours in high concentration may cause shortness of breath (lung edema). May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion	May be harmful if swallowed. May cause additional affects as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Product may cure in the gastrointestinal tract and form an obstruction. May cause adverse cardiac effects, blood disturbances, and metabolic acidosis.
Chronic Effects	Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.



Aggravated Medical Conditions Allergies. Skin disorders. Respiratory disorders. Central nervous system. Pre-existing eye disorders.
Interactions with Other Chemicals Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.
Environmental Hazard See Section 12 for additional Ecological information

Composition/Information on Ingredients

Chemical Name	CAS-No	Weight %
Dimethyl ether	115-10-6	1-5
Flame Retardant	Proprietary	10-30
Polymethylene polyphenylene isocyanate	9016-87-9	10-30
Methylene bisphenyl isocyanate (MDI)	101-68-8	10-30
Polyol blend	Proprietary	10-30
Polyol blend	Proprietary	5-10
Isobutane	75-28-5	5-10
Methylenediphenyl diisocyanate	26447-40-5	1-5
Carbon Black	Mixture	5-10
Propane	74-98-6	1-5

First Aid Measures

General Advice Call 000 or emergency medical service. Remove and isolate contaminated clothing and shoes.
Eye Contact Call a physician immediately. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.
Skin Contact Wash skin with soap and water. If symptoms persist, call a physician. Remove and wash contaminated clothing before re-use.
Inhalation Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Ingestion Call a physician or Poison Control Centre immediately. May produce an allergic reaction. Do not induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.
Notes to Physician Keep victim warm and quiet.
Protection of First-aiders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Fire-Fighting Measures

Flammable Properties Containers may explode when heated.
Flash Point -104°C / -155°F
Suitable Extinguishing Media Use extinguishing agent suitable for type of surrounding fire. Dry chemical or CO2. Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

Explosion Data

Sensitivity to mechanical impact None
Sensitivity to static discharge Yes

Specific Hazards Arising from the Chemical
Some may burn but none ignite readily. Ruptured cylinders may rocket.

Protective Equipment and Precautions for Firefighters
Wear self-contained breathing apparatus and protective suit.

NFPA Health Hazard 2 Flammability 4 Stability 1 Physical and Chemical Hazards -
HMIS Health Hazard 2* Flammability 4 Stability 1 Personal Precautions -



Accidental Release Measures

Personal Precautions	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Take precautionary measures against static discharges. Use personal protective equipment. Keep people away from and upwind of spill/leak.
Methods for Containment	If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate. Dike to collect large liquid spills.
Methods for Cleaning Up	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Do not direct water at spill or source of leak.
Other Information	Ventilate the area.

Handling and Storage

Handling	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Avoid breathing vapours or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.
Storage	Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children. Keep at temperatures below 48.8 °C / 120 °F.

Exposure Controls / Personal Protection

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methylene bisphenyl isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	75 mg/m ³
Isobutane	TWA: 1000 ppm	N/A	N/A
Propane	TWA: 1000 ppm	TWA: 1000 ppm	2100 ppm

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures	Showers Eyewash stations Ventilation systems
Personal Protective Equipment	
Eyes/Face Protection	Safety glasses with side-shields.
Skin and Body Protection	Impervious gloves. Lightweight protective clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	When using, do not eat, drink or smoke.

Physical and Chemical Properties

Appearance	Black	Odour	Faint Hydrocarbon
Odour Threshold	No Information available	Physical State	Liquid Aerosol
pH	No Information available	Autoignition Temperature	Not applicable
Flash Point	-104°C / -155°F	Boiling Point/Range	-42°C / -44°F
Decomposition temperature	No data available	Explosion Limits	No data available
Melting Point/Range	No data available	Water Solubility	Not Compatible
Flammability Limits in Air	No data available	Evaporation Rate	No data available
Specific Gravity	1.01	Vapour Density	No data available
Solubility	Compatible	EPA VOC (g/l)	155
Vapour Pressure	No data available		
VOC Content	Not applicable		
Partition Coefficient (n-octanol/water)	No data available		

Stability and Reactivity

Stability	Stable under recommended storage conditions.
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition. Temperatures above 48.8 °C / 120 °F.
Incompatible Products	Water, Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.
Hazardous Polymerization	Hazardous polymerization does not occur



Toxicological Information

Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dimethyl ether Flame Retardant	500 mg/kg (Rat)	308.5 mg/L (Rat) 4 h 1230 mg/kg (Rabbit) 5000 mg/kg (Rat)	5 mg/L (Rat) 4 h
Polymethylene polyphenylene isocyanate	49 g/kg (Rat)	9400 mg/kg (Rabbit)	490 mg/m ³ (Rat) 4 h

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methylene bisphenyl isocyanate (MDI) Polyol blend	64 mL/kg (Rat)	9200 mg/kg (Rat) 2 g/kg (Rat)	20 mL/kg (Rabbit)
Isobutane		658 mg/L (Rat) 4 h	
Methylenediphenyl diisocyanate	6200 mg/kg (Rabbit)		0.369 mg/L (Rat) 4 h
Propane		658 mg/kg (Rat)	

Subchronic Toxicity (28 days)

Chronic Toxicity

Chronic Toxicity Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Carcinogenicity There are no known carcinogenic chemicals in this product

Mutagenicity

Reproductive Toxicity
Target Organ Effects This product does not contain any known or suspected reproductive hazards. Central nervous system (CNS), Eyes, Respiratory system, Immune system, Skin, Cardiovascular system.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

Ecological Information

Ecotoxicity

Ecotoxicity effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Flame Retardant	EC50 = 4 mg/L 96 h EC50 = 45 mg/L 72 h	EC50 = 295 mg/L 30 min		EC50 = 63 mg/L 48 h
Methylenediphenyl diisocyanate	EC50 = 3230 mg/L 96 h	EC50 > 1000 mg/L 24 h		

Chemical Name	Log Pow
Dimethyl ether	-0.18
Flame Retardant	2.59
Isobutane	2.88
Propane	2.3

(Cured foam is non-toxic and safe for fish and plants.)



Disposal Considerations

Waste Disposal Method

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Should not be released into the environment. Dispose of in accordance with local regulations. Allow foam to cure before disposal.

Contaminated Packaging
US EPA Waste Number

Dispose of in accordance with local regulations
D001

Transport Information

DOT

Proper Shipping Name
Hazard Class
Description

Consumer commodity
ORM-D
Consumer commodity, ORM-D

TDG

Proper Shipping Name
Hazard Class
UN-No
Description

Aerosols
2.1
UN1950
Aerosols, 2.1, UN1950

MEX

Proper Shipping Name
Hazard Class
Description

Consumer commodity
ORM-D
Consumer commodity, ORM-D

ICAO

UN-No
Proper Shipping Name
Hazard Class
Description

UN1950
Aerosols
2.1
Aerosols, UN1950

IATA

UN-No
Proper Shipping Name
Hazard Class
ERG Code
Description

UN1950
Aerosols, flammable
2.1
10L
UN1950, Aerosols, flammable, 2.1

IMDG/IMO

Proper Shipping Name
Hazard Class
UN-No
EmS No.
Description

Aerosols
2
UN1950
F-D, S-U
UN1950, Aerosols, 2

RID

Proper Shipping Name
Hazard Class
UN-No
Classification Code
Description
ADR/RID-Labels

Aerosols
2
UN1950
5A
UN1950 Aerosols, 2, RID
2

ADR

Proper Shipping Name
Hazard Class
UN-No
Classification Code
ADR/RID-Labels

Aerosols
2
UN1950
5A
2

ADN

Proper Shipping Name
Hazard Class
Classification Code
Special Provisions
Description
Hazard Labels
Limited Quantity

Aerosols
2
5A
63, 190, 191, 277, 913
UN1950 Aerosols, 2,
2
See SP277



Regulatory Information

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Methylene bisphenyl isocyanate (MDI)	5000 lb	

WHMIS Hazard Class

A	Compressed gases
B5	Flammable aerosol
D2A	Very toxic materials



Chemical Name
Methylene bisphenyl isocyanate (MDI)

NPRI
X

Legend

NPRI - National Pollutant Release Inventory

Other Information

Issuing Date	21-Feb-2007
Revision Date	NOT AUTHORIZED
Revision Note	No information available
Disclaimer	

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS