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Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: AEROFROTH® 70 Frother
Product Description: Methyl isobutyl carbinol
Classification: Hazardous according to criteria of Worksafe Australia

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2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Component / CAS No.	%	(w/w)	Symbols	Risk Phrases
Methyl isobutyl carbinol 108-11-2	60 - 100		Xi	R:10-37

3. HAZARDS IDENTIFICATION

HUMAN AND ENVIRONMENTAL HAZARDS

Risk Phrases:
flammable.
Irritating to respiratory system.

4. FIRST AID MEASURES

Ingestion:
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Skin contact:
Wash immediately with plenty of water and soap.

Eye contact:
Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention immediately.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Use water spray, alcohol foam, carbon dioxide or dry chemical to extinguish fires. Water stream may be ineffective.

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See Section 8 (Exposure Controls/Personal Protection).

Special Hazards:

Keep containers cool by spraying with water if exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Where exposure level is known, wear approved respirator suitable for level of exposure. Where exposure level is not known, wear approved, positive pressure, self-contained respirator. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods for cleaning up:

Remove sources of ignition. Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

7. HANDLING AND STORAGE

Handling

None

Storage

Areas containing this material should have fire safe practices and electrical equipment in accordance with applicable regulations and/or guidelines. Standards are primarily based on the material's flashpoint, but may also take into account properties such as miscibility with water or toxicity. All local and national regulations should be followed. In the Americas, National Fire Protection Association (NFPA) 30: Flammable and Combustible Liquids Code, is a widely used standard. NFPA 30 establishes storage conditions for the following classes of materials: Class I Flammable Liquids, Flashpoint <37.8C Class II Combustible Liquids, 37.8C < Flashpoint <60C Class IIIa Combustible Liquids, 60 C < Flashpoint < 93C Class IIIb Combustible Liquids, Flashpoint > 93 C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS - Limits**Methyl isobutyl carbinol 108-11-2**

Australia NOSCH:	104 mg/m ³ Sk 167 mg/m ³ STEL
ACGIH (TLV)	25 ppm (skin) 40 ppm STEL

Engineering measures:

Utilize a closed system process where feasible. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

Respiratory protection:

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

Eye protection:

Prevent eye and skin contact. Provide eye wash fountain and safety shower in close proximity to points of potential exposure. Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:

Prevent contamination of skin or clothing when removing protective equipment. Wear impermeable gloves and suitable protective clothing.

Additional advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	water-white
Appearance:	liquid
Odour:	mild
Boiling Point:	132 °C
Melting Point:	-126 °C
Vapour pressure:	5 mm Hg @ 20 °C
Specific Gravity:	0.81 @ 20 °C
Vapour density:	3.5
Percent Volatile (By Wt.):	100
pH:	Not available
Saturation In Air (% By Vol.):	0.66
Evaporation rate:	0.33(Butyl acetate = 1)
Solubility In Water:	1.7% @ 20 °C
Volatile Organic Content (EU):	Not available
Flash point:	39 °C Tag closed cup
Flammable Limits (% By Vol):	Lower: 1.0 Upper: 5.5
Autoignition temperature:	583 °C
Decomposition temperature:	Not available
Partition coefficient (n-octanol/water):	Not applicable

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	None known
Polymerization:	Will not occur
Conditions To Avoid:	None known
Materials to avoid:	Strong oxidizing agents, strong acids, and alkalis.
Hazardous decomposition products:	Carbon monoxide carbon dioxide

11. TOXICOLOGICAL INFORMATION

Potential health effects

Irritating to respiratory system.

SUBSTANCE/PREPARATION

ACUTE TOXICITY DATA

Oral	rat	Acute LD50	2600 mg/kg
dermal	rabbit	Acute LD50	3600 mg/kg
Inhalation	rat	Acute LC50 4 hr	>8.4 mg/l

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	No data
Acute Irritation	eye	No data

ALLERGIC SENSITIZATION

Sensitization	dermal	No data
Sensitization	Inhalation	No data

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay	No data
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HAZARDOUS INGREDIENT TOXICITY DATA

ACUTE TOXICITY DATA

Methyl isobutyl carbinol

oral (gavage) rat Acute LD50 (Actual)	2600 mg/kg
dermal rabbit Acute LD50 (Actual)	3600 mg/kg
Inhalation rat Acute LC50 (4 hr)	> 8.34 mg/l

LOCAL EFFECTS ON SKIN AND EYE

Methyl isobutyl carbinol

Acute Dermal Irritation	Not irritating
Acute Eye Irritation	Causes serious damage

12. ECOLOGICAL INFORMATION

This material is not classified as dangerous for the environment.
This material is readily biodegradable.

FISH TEST RESULTS

Test: Acute toxicity, freshwater (OECD 203)
Duration: 96 hr. **Procedure:** Static.
Species: Rainbow Trout (*Oncorhynchus mykiss*)
 >100 mg/l LC50

INVERTEBRATE TEST RESULTS

Test: Acute Immobilisation (OECD 202)
Duration: 48 hr **Procedure:** Static
Species: Water Flea (Daphnia magna)
710 mg/l EC50

DEGRADATION

Test: Biodegradability
Duration: 28 day
>70 %

13. DISPOSAL CONSIDERATIONS

CYTEC encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, CYTEC recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

Australia (ADG)

Proper shipping name:	Methyl isobutyl carbinol
Hazard Class:	3
UN Number:	2053
Packing group:	III
Transport Label Required:	Flammable liquid
HAZCHEM Code:	3[Y]
Poison Schedule No.:	None Allocated

IMO

Proper shipping name:	Methyl isobutyl carbinol
Hazard Class:	3
UN Number:	2053
Packing group:	III
Transport Label Required:	Flammable liquid

ICAO / IATA

Proper shipping name:	Methyl isobutyl carbinol
Hazard Class:	3
Packing group:	III

UN Number: 2053
Transport Label Required: Flammable liquid
Packing Instructions/Maximum Net Quantity Per Package:
Passenger Aircraft: 309; 60L
Cargo aircraft: 310; 220L

15. REGULATORY INFORMATION

MARKING AND LABELING

Symbol(s): Xi - Irritant

Risk Phrases:

R10 - Flammable.

R37 - Irritating to respiratory system.

Safety Phrases:

none

INVENTORY INFORMATION

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS).

European Union (EU): All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) in compliance with Council Directive 67/548/EEC and its amendments.

United States (USA): All components of this product are included on the TSCA Inventory in compliance with the Toxic Substances Control Act, 15 U. S. C. 2601 et. seq.

Canada: Components of this product have been reported to Environment Canada in accordance with Sections 66 and/or 81 of the Canadian Environmental Protection Act (1999), and are included on the Domestic Substances List.

16. OTHER INFORMATION

Reasons for Issue: New Format
Revised Section 2
Revised Section 12
Revised Section 15

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