MATERIAL SAFETY DATA SHEET

BIRCHWOOD CASEY® MUZZLE MAGIC FOAM AEROSOL

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MUZZLE MAGIC FOAM AEROSOL

PRODUCT PART NUMBERS: 33747, MMF5

MANUFACTURED BY: BIRCHWOOD LABORATORIES, INCORPORATED

7900 Fuller Road

Eden Prairie, MN 55344 USA

Product Information Telephone Number: (952) 937-7900 (8:00-4:00pm CST)

Fax Number: (952) 937-7979 www.birchwoodcasey.com

24 HOUR TRANSPORTATION EMERGENCY NUMBER: CHEMTREC 800-424-9300 U.S. & CANADA

703-527-3887 INTERNATIONAL (Collect)

24 HOUR POISON CONTROL EMERGENCY NUMBER: 866-291-7152 U.S. & CANADA

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: **DANGER!** Extremely flammable. May be harmful if swallowed. Keep away from sparks and open flames. Containers involved in fire may explode. Irritating to eyes, skin, upper respiratory tract.

APPEARANCE/ODOR: White foam, alcohol odor.

EYE CONTACT: Irritation upon direct contact.

SKIN CONTACT: Prolonged contact may cause irritation and dermatitis; possible sensitization with certain individuals.

INGESTION: Irritation to the gastrointestinal tract; symtpoms of nausea, vomiting, diarrhea, headache, dizziness.

INHALATION: Inhalation of high vapor concentrations may cause central nervous system effects, and symptoms such as headache, dizziness, disorientation. Extremely high vapor concentrations may lead to asphyxiation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Description	CAS#	Weight	OSHA PEL*	OSHA PEL	ACGIH TLV	ACGIH TLV
		%	TWA	STEL/C	TWA	STEL/C
Isobutane	106-97-8	< 8	NE	NE	NE	NE
Propane	74-98-6	< 8	1000 ppm	NE	1000 ppm	NE
Isopropyl Alcohol	67-63-0	< 4	200 ppm	NE	200 ppm	400 ppm ^{STEL}
Sodium Tetraborate	1303-96-4	< 2	NE	NE	$2 \text{ mg/m}^{3(I)}$	6 mg/m ^{3-STEL}
(Borax)						
Modified Alkanolamide	8051-30-7	< 3	NE	NE	NE	NE
Pyrophosphoric Acid,	7758-16-9	< 2	NE	NE	NE	NE
Disodium Salt						
Water	7732-18-5	> 77	NE	NE	NE	NE

TWA – Time-weighted Average STEL – Short-term exposure limit C – Ceiling

(skin) – skin designation means that harmful amounts may be absorbed through the skin

NE = not established NA = not applicable NDA = no data available

^{*} Certain States enforce PELs that were in place in 1989, but were later removed by the U.S. Supreme Court. Check with your State OSHA to determine which PEL is enforced in your State.

4. FIRST AID MEASURES

EYE CONTACT: Flush immediately with clean water. Continue for at least 15 minutes. Seek medical attention if necessary.

SKIN CONTACT: Remove contaminated clothing to avoid prolonged contact. Wash affected areas with water. Seek medical attention if irritation develops.

INGESTION: Call Poison Control Center immediately. Do not induce vomiting. If victim is conscious, give 1-2 glasses of water.

INHALATION: Remove from exposure. Seek medical attention if necessary if breathing is difficult.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: ~ -156°F (based on propellant) METHOD USED: NDA

FLAMMABLE LIMITS: LFL: 1.9 % UFL: 9.5 %

EXTINGUISHING MEDIA: Water spray, carbon dioxide, dry chemical

FIRE & EXPLOSION HAZARDS: Excessive heat may cause bursting of aerosol cans. Vapors are heavier than air, and may travel along low surfaces to ignition sources, resulting in flashback.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear approved SCBA and full turn-out gear.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear recommended protective equipment. Eliminate ignition sources. Ventilate area. Vent remaining material to outdoor air.

Review current local, state and federal laws, codes, statutes, and regulations to determine appropriate agencies to be notified, and the conditions under which they are to be notified. (See Section 13 for waste disposal comments).

7. HANDLING AND STORAGE

HANDLING: Avoid breathing mists or vapor. Avoid eye and skin contact. Prohibit smoking in the area and exclude sources of spark or open flame. Avoid static discharge. Wear protective equipment when handling product. Empty containers may still have product residue and combustible vapors. Do not puncture or incinerate. Keep out of the reach of children.

STORAGE: Do not store where temperature may exceed 120°F

8. EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY PROTECTION: Use a NIOSH approved respirator (Full or half-face supplied-air or organic vapor cartridge type) if any of the occupational exposure limits in Section 3 may be exceeded.

EYE PROTECTION: safety glasses with side shields, or goggles

PROTECTIVE GLOVES / BODY PROTECTION: neoprene or butyl rubber

VENTILATION: Use general/dilution or local exhaust ventilation as needed to ensure that occupational exposure limits are not exceeded. Do not use in enclosed spaces.

OTHER PROTECTIVE EQUIPMENT: Eyewash

NOTE: All PPE should be selected on the basis of an exposure assessment performed by a competent person.

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9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 194°F SPECIFIC GRAVITY: (Water = 1): 1

VAPOR PRESSURE: NDA

VOLATILE BY VOLUME: 5% (except water)

VAPOR DENSITY: (Air = 1): >1

EVAPORATION RATE: (Ethyl Ether = 1): >1

SOLUBILITY IN WATER: Miscible pH: 9.05

APPEARANCE: White foam ODOR: alcohol odor

10. STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Avoid high temperatures and ignition sources.

INCOMPATIBILITY (materials to avoid): Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce carbon monoxide, carbon dioxide,

sulfur oxides, aldehydes

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

There is no product based toxicological information for this product. Toxicology information is provided based on individual ingredients.

LD_{50s}, oral, rat: 5045 mg/kg (isopropanol)

TARGET ORGANS: Eyes, skin, lungs (irritant). Prolonged or repeated skin exposure may cause dermatitis. An ingredient in this material has been investigated as a reproductive toxicant in animal studies, but relevance to humans is unknown.

Medical conditions that may be aggravated by exposure: Pre-existing skin, eye, respiratory or CNS disorders.

Carcinogenicity: IARC: 3* (isopropanol) NTP: None OSHA: None

12. ECOLOGICAL INFORMATION

ECOTOXICITY: NDA

ENVIRONMENTAL FATE: NDA

13. DISPOSAL CONSIDERATIONS

Empty can and discard as solid trash. Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. Treatment, transport, storage and disposal of hazardous waste must be dealt with by a licensed facility or waste hauler.

14. TRANSPORT INFORMATION

D.O.T. HAZARDOUS MATERIALS DESCRIPTION AND PROPER SHIPPING NAME:

Consumer Commodity ORM-D

^{*} unclassifiable regarding carcinogenicity in humans

15. REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCES CONTROL ACT): the materials in this product are listed on the TSCA Inventory. CERCLA (Comprehensive Response compensation and Liability Act, 40 CFR 117, 302: Reportable Quantity - NDA SARA TITLE III (Superfund Amendments and Authorization Act):

Section 311/312:

Immediate Health Effects: Yes Delayed Health Effects: Yes

Fire Hazard: Yes

Sudden Release of Pressure Hazard: Yes

Reactivity Hazard: No

Section 313 Reportable Ingredients: None

STATE "RIGHT-TO-KNOW": This product may contain components cited on certain state lists. Consult with your individual State regarding this product's components.

16. OTHER INFORMATION

National Fire Protection Association (NFPA): Health: 2 Flammability: 4 Reactivity: 0

The data here is for hazard communication to our employees, our customers and their employees, and authorized regulatory agencies. For the intended purpose, this MSDS (Material Safety data Sheet) may be duplicated or the data transcribed to an alternative form.

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FOR ASSISTANCE WITH PLACING ORDERS:

- Product Pricing / Payment Terms
- Shipping and Tracing of Shipments
- Sales Rep Locations

Call our Sales Department (952) 937-7933

Or 1-800-328-6156 or Fax (952) 937-7979

FOR PRODUCT USAGE ASSISTANCE

- Questions on Operation of Products
- Solving Finishing Problems
- · Operator Safety and Pollution Control

Call our Customer Service Desk (952) 937-7916

Or 1-800-328-6156 or Fax (952) 937-7979