

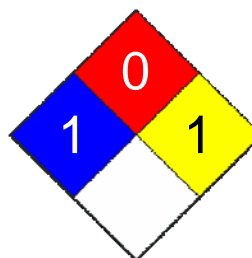
# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** Mighty Sonic Horn  
**Synonym(s)** Product code: MSN  
Product code: MSNR  
Product code  
Product code  
Product code  
**CAS #** Mixture  
**Product use** Boat Safety – Hand Held Signaling Device  
**Manufacturer** Falcon Safety Products, Inc.  
25 Imclone Drive  
Branchburg, NJ 08876 US  
Phone: 1-908-707-4900  
**Supplier** Falcon Safety Products, Inc.  
25 Imclone Drive  
Branchburg, NJ 08876 US  
Phone 1-908-707-4900

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 1
Flammability	0
Physical Hazard	1
Personal Protection	X



## 2. Hazards Identification

**Emergency overview** CAUTION  
Contents under pressure. Containers may explode when heated.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation.

**Eyes** Contact with liquid may cause frostbite.

**Skin** Contact with liquid may cause frostbite.

**Inhalation** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness). Vapors may cause dizziness or suffocation.

**Ingestion** Not a normal route of exposure.

**Target organs** Eyes. Skin. Respiratory system.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Ethane, 1,1,1,2-tetrafluoro-	811-97-2	60 - 100

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

**Skin contact** Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

<b>Inhalation</b>	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
<b>General advice</b>	Do not puncture or incinerate container. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Not flammable by WHMIS/OSHA criteria. Containers may explode when heated.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Small Fires: Carbon dioxide. Dry chemical.  Large Fires: Water spray. Fog. Foam.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out.
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Fluoride gases.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Methods for containment</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

## 7. Handling and Storage

<b>Handling</b>	Avoid breathing mists or aerosols of this product. Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Do not store at temperatures above 49 °C (120.2°F). Keep away from heat, open flames or other sources of ignition.

## 8. Exposure Controls / Personal Protection

<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
Ethane, 1,1,1,2-tetrafluoro-	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
<b>Engineering controls</b>	Use only under good ventilation conditions or with respiratory protection.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear safety glasses with side shields.

<b>Hand protection</b>	If there is constant skin contact, rubber gloves are recommended.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands and face before breaks and immediately after handling the product.

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Clear.
<b>Color</b>	Colorless
<b>Form</b>	Liquefied gas
<b>Odor</b>	Slight ethereal.
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Gas
<b>pH</b>	Not applicable
<b>Melting point</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	-26.5 °C (-15.70 °F)
<b>Flash point</b>	None
<b>Pour point</b>	Not available
<b>Evaporation rate</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	662 kPa
<b>Vapor density</b>	3.6 @25°C (air=1)
<b>Specific gravity</b>	1.21 @25°C
<b>Octanol/water coefficient</b>	Not available
<b>Solubility (H2O)</b>	Slightly
<b>Auto-ignition temperature</b>	> 750 °C (> 1382.00 °F)
<b>Percent volatile</b>	100

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## 10. Stability and Reactivity

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<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Aerosol containers are unstable at temperatures above 49°C (120.2°F).
<b>Incompatible materials</b>	Alkaline materials. Alkaline earth metals.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Fluoride gases.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

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## 11. Toxicological Information

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### Component analysis - LC50

Ingredient(s)	LC50
Ethane, 1,1,1,2-tetrafluoro-	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Ethane, 1,1,1,2-tetrafluoro-	Not available

### Effects of acute exposure

<b>Eye</b>	Contact with liquid may cause frostbite.
<b>Skin</b>	Contact with liquid may cause frostbite.

<b>Inhalation</b>	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness). Vapors may cause dizziness or suffocation.
<b>Ingestion</b>	Not a normal route of exposure.
<b>Sensitization</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Chronic effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Synergistic Materials</b>	Not available

## 12. Ecological Information

<b>Ecotoxicity</b>	Not available
<b>Environmental effects</b>	Not available
<b>Aquatic toxicity</b>	Not available
<b>Persistence / degradability</b>	Not available
<b>Bioaccumulation / accumulation</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Mobility in environmental media</b>	Not available
<b>Chemical fate information</b>	Not available
<b>Other adverse effects</b>	Not available

## 13. Disposal Considerations

<b>Waste codes</b>	Not available
<b>Disposal instructions</b>	Review federal, state/provincial, and local government requirements prior to disposal.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

## 14. Transport Information

### U.S. Department of Transportation (DOT)

**Basic shipping requirements:**

<b>Proper shipping name</b>	Refrigerant gas R 134a, mixture
<b>Hazard class</b>	2.2
<b>UN number</b>	3159
<b>Additional information:</b>	
<b>Packaging exceptions</b>	ORM-D (applicable to containers up to 1 L)



## Transportation of Dangerous Goods (TDG - Canada)

### Basic shipping requirements:

Proper shipping name	Refrigerant gas R 134a
Hazard class	2.2
UN number	3159
Additional information:	
Packaging exceptions	Limited quantity (containers up to 125mL)



## IATA/ICAO (Air)

### Basic shipping requirements:

Proper shipping name	Refrigerant gas R 134a mixture
Hazard class	2.2
UN number	3159
Additional information:	
Maximum net quantity packaging	75 kg



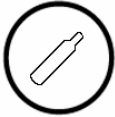
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## 15. Regulatory Information

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<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
<b>US Federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.  CERCLA/SARA Hazardous Substances - Not applicable.
<b>Occupational Safety and Health Administration (OSHA)</b>	
29 CFR 1910.1200 hazardous chemical	Yes
<b>CERCLA (Superfund) reportable quantity</b>	
None	
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - Yes Reactivity Hazard - No
Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes
<b>Clean Air Act (CAA)</b>	Not available
<b>Clean Water Act (CWA)</b>	Not available
<b>WHMIS status</b>	Controlled
<b>WHMIS classification</b>	Class A - Compressed Gas

**WHMIS labeling**



**State regulations**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**U.S. - Minnesota - Hazardous Substance List**

Ethane, 1,1,1,2-tetrafluoro-      811-97-2      Present

**U.S. - New Jersey - Right to Know Hazardous Substance List**

Ethane, 1,1,1,2-tetrafluoro-      811-97-2      sn 2744; sn 2745 (flammable)

**Inventory name**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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## 16. Other Information

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**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

**Issue date**

28-Oct-2009

**Effective date**

15-Oct-2009

**Expiry date**

15-Oct-2012

**Prepared by**

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**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.