Safety Data Sheet

*** Section 1 - Chemical Product and Company Identification ***

Chemical Name: Bromotrifluoromethane in a pressurized container
Product Use: Extinguishing Fires
Synonyms: CC0111

Manufacturer Information
Kidde Aerospace
4200 Airport Drive, NW
Wilson, NC 27896
Phone: 252-246-7004
Emergency # 1-800-451-8346; 760-602-8700 (3E Company)

*** Section 2 - Composition / Information on Ingredients ***

<table>
<thead>
<tr>
<th>CAS #</th>
<th>EINECS #</th>
<th>Component</th>
<th>Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-63-8</td>
<td>200-887-6</td>
<td>bromotrifluoromethane</td>
<td>N; R59</td>
<td>&gt;99</td>
</tr>
</tbody>
</table>

Component Related Regulatory Information
This product may be regulated, have exposure limits or other information identified as the following:
Bromofluorocarbons, Bromine compounds.

General Product Information
This material has been evaluated using the criteria specified in European Union Directives 67/548/EEC, 99/45/EC and 2001/58/EC.

*** Section 3 - Hazards Identification ***

Substance Preparation Classification
Dangerous for the ozone layer.

Emergency Overview
This material is not classified as hazardous according to European Union Directives 67/548/EEC, 99/45/EC and 2001/58/EC.

Warning. Asphyxiant. Inhalation of vapours of this product may affect the cardiovascular and central nervous system and may cause death. Skin or eye contact with the liquid will cause frostbite. Pressurized container may explode when exposed to heat or flame.

Potential Health Effects: Eyes
Contact with the liquid of this product will cause frostbite to the eyes.

Potential Health Effects: Skin
Contact with the liquid of this product will cause frostbite to the skin.

Potential Health Effects: Ingestion
Not a likely route of entry.

Potential Health Effects: Inhalation
Asphyxiant. The vapours of this product reduce oxygen available for breathing and are heavier than air. Inhalation of the vapours of the product causes central nervous system depression and affects the cardiovascular system. Symptoms include nausea, vomiting, irregular heartbeat, symptoms of drunkenness, disorientation, bluish skin color, suffocation, convulsions and possibly death.

*** Section 4 - First Aid Measures ***

First Aid: Eyes
Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

First Aid: Skin
Get medical attention. If frostbite or freezing occurs, immediately flush with plenty of lukewarm water (105-115°F; 41-46°C) for at least 15 minutes. Do not use hot water.

First Aid: Ingestion
If large amount is swallowed, get medical attention.
First Aid: Inhalation
Get medical attention. Remove the affected person immediately to fresh air.

First Aid: Notes to Physician
Do not give epinephrine or similar drugs for treatment of overexposure.

*** Section 5 - Fire Fighting Measures ***

Flash Point: Not applicable
Method Used: Not applicable
Upper Flammable Limit (UFL): Not applicable
Lower Flammable Limit (LFL): Not applicable
Auto Ignition: Not applicable
Flammability Classification: Not applicable
Rate of Burning: Not applicable

General Fire Hazards
Pressurized Container: May explode when exposed to heat or flame. Product itself is not flammable.
Decomposition of this product occurs at >850°C (>1562°F).

Hazardous Combustion Products
Hydrogen fluorides, hydrogen bromides, free bromine and carbonyl halides.

Extinguishing Media
Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions
Firefighters should use self contained breathing apparatus and wear full ensemble conforming to the European Standard for Firefighter Clothing EN 469. Use water to cool fire-exposed containers and to protect personnel.

*** Section 6 - Accidental Release Measures ***

Containment Procedures
Do not inhale vapours. Stop the flow of material, if this is without risk. Move the cylinder to a safe and open area if the leak is irreparable.

Clean-Up Procedures
Evacuate the area promptly. Ventilate the contaminated area. Use appropriate respiratory equipment.

Evacuation Procedures
Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering.

Special Procedures
Regulations vary. Consult local authorities before disposal.

*** Section 7 - Handling and Storage ***

Handling Procedures
Do not inhale vapours. Do not get into contact with the eyes or skin. Use with sufficient ventilation to keep employee exposure below recommended limits.

Storage Procedures
Do not store above 125°F (51.6°C). Store in accordance with all regulations and standards applicable to liquified compressed gases. Keep from away incompatible substances. Protect from physical damage.

Specific Use
Fire extinguishing agent.
**Section 8 - Exposure Controls / Personal Protection**

**Substance Exposure Limits**

**bromotrifluoromethane (75-63-8)**

- **ACGIH**: 1000 ppm TWA
- **Austria**: 2000 ppm STEL (60 min); 12200 mg/m3 STEL (60 min)
- **Germany**: 1000 ppm TWA; 6200 mg/m3 TWA
- **Finland**: 1300 ppm STEL; 8000 mg/m3 STEL
- **France**: 1000 ppm VME; 6100 mg/m3 VME
- **Belgium**: 1000 ppm VLE; 6178 mg/m3 VLE
- **Denmark**: 1000 ppm TWA; 6100 mg/m3 TWA
- **Finland**: 1300 ppm STEL; 8000 mg/m3 STEL
- **Germany**: 1000 ppm TWA; 6200 mg/m3 TWA
- **Spain**: 1000 ppm VLA-ED; 6195 mg/m3 VLA-ED
- **United Kingdom**: 1000 ppm TWA; 6190 mg/m3 TWA
- **Greece**: 1200 ppm STEL; 7300 mg/m3 STEL
- **Ireland**: 1200 ppm STEL; 7300 mg/m3 STEL
- **Netherlands**: 1000 ppm MAC; 6100 mg/m3 MAC
- **Portugal**: 1000 ppm TWA
- **Spain**: 1000 ppm VLA-ED; 6195 mg/m3 VLA-ED
- **United Kingdom**: 1200 ppm STEL; 7430 mg/m3 STEL

**Engineering Controls**

Ventilation should effectively remove and prevent buildup of any vapours generated from the handling of this product.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipment: Eyes/face**

Wear chemical goggles.

**Personal Protective Equipment: Skin**

The use of polyvinyl chloride (PVC) or polyvinyl alcohol (PVA) gloves are recommended.

**Personal Protective Equipment: Respiratory**

If airborne concentrations are above the applicable exposure limits, use approved respiratory protection. If a large spill occurs, the use of a self-contained breathing apparatus (SCBA) is required.

**Personal Protective Equipment: General**

Eye wash fountain and emergency showers are recommended. Use good industrial hygiene practices in handling this material.

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**Section 9 - Physical & Chemical Properties**

- **Appearance**: Clear, colorless
- **Physical State**: Liquefied gas
- **Vapor Pressure**: 235 psia @ 77°F (25°C)
- **Boiling Point**: -72°F (-58°C)
- **Solubility (H2O)**: 0.03 WT% @ 77°F (25°C)
- **Percent Volatile**: 100%
- **Odor**: Slight ethereal
- **pH**: Neutral
- **Vapor Density**: 5.14 (Air = 1) @ 77°F (25°C)
- **Melting Point**: Not available
- **Specific Gravity**: 1.5 @ 77°F (25°C)

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**Section 10 - Chemical Stability & Reactivity Information**

**Chemical Stability**

Stable under normal temperature and pressure. Avoid contact with open flames or temperatures above 1000°F (537°C).

**Chemical Stability: Conditions to Avoid**

Protect container from heat and physical damage.

**Incompatibility**

Liquid contact with alkali and alkaline earth metals (powdered aluminum, zinc, beryllium, etc.).
**Safety Data Sheet**

**Material Name:** Recycled Halon 1301

**ID:** KA003EU

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**Hazardous Decomposition**

Hydrogen fluorides, hydrogen bromides, free bromine and carbonyl halides.

**Hazardous Polymerization**

Will not polymerize.

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### **Section 11 - Toxicological Information**

**Acute and Chronic Toxicity**

**A: General Product Information**

Asphyxiating. The vapours of this product reduce oxygen available for breathing and are heavier than air. Inhalation of the vapours of the product causes central nervous system depression and affects the cardiovascular system. Symptoms include nausea, vomiting, irregular heartbeat, symptoms of drunkenness, disorientation, bluish skin color, suffocation, convulsions and possibly death. Skin or eye contact with the liquid will cause frostbite.

**B: Component Analysis - LD50/LC50**

- **bromotrifluoromethane (75-63-8)**
  - Inhalation LC50 Rat: 84000 ppm/15M

**Carcinogenicity**

**A: General Product Information**

No carcinogenicity data available for this product.

**B: Substance Carcinogenicity**

None of the substances in this preparation are listed by IARC, Austria, Belgium, Denmark, France, Germany, Ireland, Luxembourg, Netherlands, Spain, or United Kingdom.

**Chronic Toxicity**

Lung irritation and degeneration of the liver and kidneys were seen in animals exposed repeatedly by inhalation to lethal or near lethal concentrations. Causes nervous system and cardiovascular system effects.

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### **Section 12 - Ecological Information**

**Ecotoxicity**

**A: General Product Information**

No information available for the product.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

No ecotoxicity data are available for this product's components.

**Mobility**

The adsorption Koc for bromotrifluoromethane can be estimated to be approximately 244.8. This indicates that the compound will be moderately mobile in soil.

**Persistence & Degradation**

Photodegradation: >50% after 44 years

**Bioaccumulation**

The bioaccumulative potential has not been determined.

**Other Adverse Effects**

**A: General Product Information**

Causes harm to the ozone layer.

**B: EU Ozone Depleting Substances**

- **bromotrifluoromethane (75-63-8)**
  - 10.0 ODP; Group III Substance

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### **Section 13 - Disposal Considerations**

**Waste Disposal Instructions**

Dispose according to national, regional and local regulations. This material harms the ozone layer and may contribute to global warming.
**Section 14 - Transportation Information**

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Note: Kidde Aerospace has party status to DOT exemption 12726 (DOT-E-12726) to ship Halon 1301 fire extinguishers as UN1044. Unless another shipper has party status to DOT-E-12726, the Halon 1301 fire extinguishers covered by this MSDS must be shipped as UN1956.

**Section 15 - Regulatory Information**

European Union Regulatory Information

A: General Product Information

Labeling:

- R59 Dangerous for the ozone layer.
- S57 Use appropriate container to avoid environmental contamination.
- S59 Refer to manufacturer/supplier for information on recovery/recycling.
- S9 Keep container in a well-ventilated place.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>EEC</th>
<th>CAN</th>
<th>TSCA</th>
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<td>75-63-8</td>
<td>EINECS</td>
<td>DSL</td>
<td>Yes</td>
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</table>

B: Component Analysis - Inventory

This material has not been analyzed.

**Section 16 - Other Information**

Full text of all Risk Phrases in Sections 2 & 3

- R59 Dangerous for the ozone layer.
Key/Legend
TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NTP = National Toxicology Program; IATA = International Air Transport Association; IMO = International Maritime Organization; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; DFG = Deutsche Forschungsgemeinschaft; MAC/MAK = Maximum Concentration Value in the Workplace; TWA = Time Weighted Average; STEL = Short-term Exposure Limit; EINECS = European Inventory of Existing Commercial Chemical Substances; EEC = European Economic Community; VLA/VLE = Work Exposure Threshold; OEL = Occupational Exposure Limit; NA = Not Applicable or Not Available.

Other Information
The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

End of Sheet KA003EU