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JAMES BRIGGS LTD

CONSUMER CHEMICAL & AEROSOL SPECIALISTS



Industrial Division

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PRODUCT INFORMATION SHEET

ISSUE JAN 94/1

BRIGGS REF.

AP. 2

PRODUCT

CIRCUIT FREEZER

DESCRIPTION

This is a rapidly evaporating propellant mixture for reducing surface temperatures.

APPLICATIONS

It rapidly reduces the temperature of electrical components to aid detection of overheating and similar faults. It is also often used to freeze water in small bore pipes to effect a repair avoiding the necessity of system drainage. Further use can be found as a highly effective chewing gum remover.

DIRECTIONS

Spray directly onto affected component using the extension tube.

For chewing gum removal, apply to gum until frozen, then pull or chip away.

PROPERTIES

Sprays to give a rapidly freezing mixture of propellants, enabling effective temperature reduction in localised areas. Will cause a "cold" burn if in contact with skin tissues.

OZONE FRIENDLY - YES

FLAMMABLE SYMBOL REQUIRED - NO

HARMFUL X REQUIRED - NO

Specialists in the Customised Design of Consumer Chemicals and Aerosols

AP.2

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

Product name: SCF12 CIRCUIT FREEZER
Intended use: Pipe/component freezing spray

Manufacturer: JAMES BRIGGS LTD.
Address: Salmon Fields
Royton
Oldham

OL2 6HZ

Telephone: 0161 627 0101
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2. COMPOSITION/INFORMATION ON INGREDIENTS.

INGREDIENT NAME	CAS NO.	HEALTH (class)	RISK (R No.)	CONTENTS %
1,1,1,2-Tetrafluoroethane (R134a)	811-97-2	None	None	>50
Butane	106-97-8	None	None	1-5

3. HAZARDS IDENTIFICATION.

Eye contact: May cause freeze burns due to its low boiling point.

Skin contact: May cause freeze burns due to its low boiling point.

Inhalation: High levels of vapour/mist may cause dizziness. Can cause irritation of the respiratory tract.

Ingestion: Accidental ingestion is an unlikely event.

4. FIRST AID MEASURES.

Eye contact: Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners. If in doubt, seek medical advice.

Inhalation: Remove to fresh air, keep the patient warm and at rest. If breathing is irregular or has stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.

Ingestion: Not applicable.

5. FIRE-FIGHTING MEASURES.

Extinguishing media: Alcohol resistant foam; CO₂; powder; water spray/mist
Do not use: Water jet.

Special fire fighting procedures: Fire exposed containers should be sprayed with water to lessen risk of explosion.

Unusual fire and explosion hazards: Fire may cause hydrogen halides to evolve. In case of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES.

Procedures for leaks or spillage: Ensure good ventilation and allow to evaporate.

7. HANDLING AND STORAGE.

Handling: Vapours are heavier than air and may spread along floors. They may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.
Use only in areas from which all sources of heat, sparks and open flame have been excluded.
Avoid inhalation of vapour and spray mist.
Good housekeeping standards and regular safe removal of waste materials will minimise risks of spontaneous combustion and other fire hazards.

Storage: Store below 50 Deg.C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Observe the label precautions.
Store separately from strong oxidising agents and strongly alkaline and strongly acidic materials.

8.EXPOSURE CONTROLS/PERSONAL PROTECTION.

INGREDIENT NAME
1,1,1,2-Tetrafluoroethane
Butane

OES/MEL	8hr TWA	15min STEL
OES	1000ppm(Sup)	-
OES	600ppm	750ppm

Engineering measures: Provide adequate ventilation to ensure the airborne concentration of substances to which an OES/MEL has been assigned is below that OES/MEL (Occupational Exposure Standard/Maximum Exposure Limit).

Respiratory protection: Air-fed respiratory equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational exposure limit and engineering controls and measures cannot reasonably be improved.

Hand protection: Use of protective gloves is recommended.

Eye protection: Eye protection designed to protect against liquid splashes should be worn.

Skin protection: Cotton or cotton/synthetic overalls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner.

9.PHYSICAL AND CHEMICAL PROPERTIES.

Physical State: Aerosol.
Appearance: Colourless
Odour: Slightly sweet, ethereal
pH: N/A
Boiling point/boiling range: -24.7 Deg.C
Melting point/melting range: Deg.C
Flash point: N/A Deg.C
Flammability: LEL 0.8 (% vol in air @ 25 Deg.C)
UEL 9.0
Autoflammability: N/A Deg.C
Explosive properties: None
Oxidising properties: None
Can pressure: 6.89 bar.
Relative density:
VOC content: 109g/100ml
Solubility-Water:
Solubility-Solvent:
Other data:

10.STABILITY AND REACTIVITY.

Stability: Stable.

Conditions to avoid: Avoid naked flames, red hot surfaces, other high temp.sources that may induce thermal decomposition

Incompatibility (Materials to avoid): Strong acids/alkalis/oxidising agents/reactive metals e.g.sodium, potassium, calcium, magnesium, zinc, barium, lithium, molten or powdered aluminium.

Hazardous decomposition products: Hydrogen halides, traces of carbonyl halides.

11.TOXICOLOGICAL INFORMATION.

INGREDIENT

LD50(Animal/oral)

There is no data available on the product itself.
1,1,1,2-Tetrafluoroethane vapour concentrations substantially above the OEL may cause narcotic effects. Inhalation of decomposition products in high concentration may cause shortness of breath. No carcinogenic, teratogenic or mutagenic effects were shown in animal experiments. Rapid evaporation of the liquid from skin or eye tissue may cause frostbite.

12.ECOLOGICAL INFORMATION.

There is no data available on the product itself.
1,1,1,2-Tetrafluoroethane Ozone Depletion Potential (ODP) = 0

13.DISPOSAL CONSIDERATIONS.

Special treatment, e.g. at a suitable incineration plant must be undertaken to avoid dangerous emissions into the atmosphere of SO₂, HCl, HF, etc.

14.TRANSPORT INFORMATION.

CCCN: 2903 40 00
UN no.: 1950
IMDG: 9022
Class: 9
ICAO/IATA:

RID/ADR:

15. REGULATORY INFORMATION.

Risk phrases: None

Safety phrases:

- 2: Keep out of the reach of children.
23: Do not breathe vapour/spray.
44: If you feel unwell, seek medical advice (show the label where possible).
51: Use only in well ventilated areas.

Regulatory references: The Chemicals (Hazard Information and Packaging) Regulations 1994

16. OTHER INFORMATION.

The information contained in this data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging) Regulations. It does not constitute the user's own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health & Safety at Work etc. Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of the relevant legislation are complied with.

OES/MEL values are obtained from the current issue of EH40 unless indicated thus (Sup) when a value has been obtained from the supplier.

Further information and advice can be found in the following publications:

The Control of Substances Hazardous to Health Regulations 1988 (SI 1988:1657)

The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839)

Storage of Packaged Dangerous Substances, HS(G)71

Date of issue of original: 20/11/95

Revision: 1

Revision dated: 23/11/95

Items marked with a * have been amended since last revision.

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with legal regulations. The information contained herein is based on the current state of our knowledge and is intended to describe products from the point of view of safety requirements and thus should not be construed as guaranteeing specific properties. For further information contact the office.