

Safety Data Sheet

Product : Suva 407C

MSDS Nr :300-25-0004BOC Version : 1.02 Date : 03 / 06 / 1998

BOC, Priestley Road, Worsley, Manchester M28 2UT 0645 645 555

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name Suva 407C

Company identification See heading and/or footer

Emergency phone numbers See heading and/or footer

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation Preparation.

Components/Impurities Contains the following components: R32 (CH₂F₂) / R125 (C₂H₅F) / R134a (C₂H₂F₄)

EEC Nr (from EINECS) Not applicable for preparations.

3 HAZARDS IDENTIFICATION

Hazards identification Contact with product may cause cold burns or frostbite.

In high concentrations may cause asphyxiation.

Liquefied gas.

4 FIRST AID MEASURES

Inhalation In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness.

Victim may not be aware of asphyxiation.

Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

Skin/eye contact In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing.

Immediately flush eyes thoroughly with water for at least 15 minutes.

Remove contaminated clothing. Drench affected area with water for at least 15 minutes

Obtain medical assistance

Ingestion Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards Exposure to fire may cause containers to rupture/explode.

Non flammable

Hazardous combustion products If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition:

Carbonyl fluoride

Carbon monoxide

Hydrogen fluoride

Suitable extinguishing media All known extinguishants can be used.

Specific methods If possible, stop flow of product.

Move container away or cool with water from a protected position.

Special protective equipment for fire fighters Use self-contained breathing apparatus and chemically protective clothing.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate area.

Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

Ensure adequate air ventilation.

Environmental precautions Try to stop release.

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

Clean up methods Ventilate area.

7 HANDLING AND STORAGE

Handling and storage Suck back of water into the container must be prevented.

Do not allow backfeed into the container.

Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.

Refer to supplier's container handling instructions.

Keep container below 50°C in a well ventilated place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit value for country UK: 1,1,1,2-Tetrafluoroethane - LTEL: 1000ppm (EH40/97)

UK: R32, R125: LTEL 1000ppm [DuPont (1995)]

Personal protection Do not smoke while handling product.

Ensure adequate ventilation.

9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling point -43.9 °C

Relative density, gas Heavier than air.

Vapour Pressure 20°C 10.2 bar(a).

Solubility mg/l water Not known, but considered to have low solubility.

Appearance/Colour Colourless gas.

Odour Ethereal.

Poor warning properties at low concentrations.

Other data Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10 STABILITY AND REACTIVITY

Stability and reactivity Stable under normal conditions.

Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.

11 TOXICOLOGICAL INFORMATION

General May produce irregular heart beat and nervous symptoms.

12 ECOLOGICAL INFORMATION

General Not covered by the 'Montreal Protocol'.

Ozone depletion factor C2HF5: 0 / C2H2F4: 0

Global warming factor C2HF5: 0.84 (R11=1) / C2H2F4: 0.28 (R11=1)

13 DISPOSAL CONSIDERATIONS

General Must not be discharged to atmosphere.

Refer to supplier's waste gas recovery programme.

Do not discharge into any place where its accumulation could be dangerous.

Contact supplier if guidance is required.

14 TRANSPORT INFORMATION

UN Number 3163

Class/Div 2.2 (Non flammable, non toxic gases)

ADR/RID Item Nr 2, 2?A

ADR/RID Hazard Nr 20

CEFIC Groupcard Nr 20G39

Labelling ADR Label 2: non flammable non toxic gas

Other transport information Avoid transport on vehicles where the load space is not separated from the driver's compartment.

Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers ensure that they are firmly secured and:

- cylinder valve is closed and not leaking
- valve outlet cap nut or plug (where provided) is correctly fitted
- valve protection device (where provided) is correctly fitted
- there is adequate ventilation.
- compliance with applicable regulations.

15 REGULATORY INFORMATION

Labelling of cylinders

-Symbols Label 2: non flammable non toxic gas

-Risk phrases RAs Asphyxiant in high concentrations.

-Safety phrases S9 Keep container in well ventilated place.

S23 Do not breathe the gas.

16 OTHER INFORMATION

Ensure all national/local regulations are observed.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.