

# SAFETY DATA SHEET

1-CHLORO-1,3,3,3-TETRAFLUOROPROPENE

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Issued: 19/09/2007

Revision No: 1

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Product name:** 1-CHLORO-1,3,3,3-TETRAFLUOROPROPENE

**CAS number:** 460-71-9

**Product code:** PC3034

**Company name:** Apollo Scientific Ltd  
Bredbury, Stockport, SK6 2QR, Tel 0161 406 0505

## 2. HAZARDS IDENTIFICATION

**Main hazards:** Irritating to eyes, respiratory system and skin. Flammable.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Hazardous ingredients:** 1-CHLORO-1,3,3,3-TETRAFLUOROPROPENE >90%

## 4. FIRST AID MEASURES (SYMPTOMS)

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

## 4. FIRST AID MEASURES (ACTION)

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Carbon dioxide. Dry chemical powder.

**Exposure hazards:** In combustion emits toxic fumes.

**Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

[cont...]

**7. HANDLING AND STORAGE**

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. only use in fume hood

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**State:** Gas

**10. STABILITY AND REACTIVITY**

**Stability:** Stable under normal conditions.

**Conditions to avoid:** Heat.

**Materials to avoid:** Strong oxidising agents. Strong acids.

**Haz. decomp. products:** In combustion emits toxic fumes.

**11. TOXICOLOGICAL INFORMATION**

**Chronic toxicity:** May cause sensitisation by skin contact.

**Routes of exposure:** Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

**12. ECOLOGICAL INFORMATION**

**Mobility:** Data not yet known

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Other adverse effects:** Data not known

**13. DISPOSAL CONSIDERATIONS**

**Disposal operations:** MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS

**Disposal of packaging:** Dispose of as special waste in compliance with local and national regulations Observe all federal, state and local environmental regulations.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**14. TRANSPORT INFORMATION****ADR / RID**

**UN no:** 3161 **ADR Class:** 2  
**Classification code:** 2F  
**Shipping name:** LIQUEFIED GAS, FLAMMABLE, N.O.S.  
**Labelling:** 2.1 **Hazard ID no:** 23

**IMDG / IMO**

**UN no:** 3161 **Class:** 2.1  
**EmS:** F-D,S-U **Marine pollutant:** .  
**Labelling:** 2.1

**IATA / ICAO**

**UN no:** 3161 **Class:** 2  
**Packing instructions:** FORBIDDEN(P&CA); 200  
**Labelling:** 2.1

**15. REGULATORY INFORMATION**

**Hazard symbols:** Flammable.

**Risk phrases:** R36/37/38: Irritating to eyes, respiratory system and skin.  
R10: Flammable.

**Safety phrases:** S16: Keep away from sources of ignition - No smoking.  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

**16. OTHER INFORMATION**

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.