

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : 2,3,4,5,6-Pentafluorotoluene

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008  
Flammable liquids (Category 3)  
Acute toxicity, Inhalation (Category 4)  
Acute toxicity, Dermal (Category 4)  
Acute toxicity, Oral (Category 4)  
Skin irritation (Category 2)  
Eye irritation (Category 2)  
Specific target organ toxicity - single exposure (Category 3)

According to European Directive 67/548/EEC as amended.  
Flammable. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

Label elements



Signal word : Warning

Hazard statement(s)  
H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.

Precautionary statement(s)  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves/ protective clothing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazard symbol(s)  
Xn Harmful  
R-phrases)  
R10 Flammable.  
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
S-phrases(s)  
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 Wear suitable protective clothing.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C7H3F5  
Molecular Weight : 182,09 g/mol

| CAS-No.                                  | EC-No.    |   | Classification                                                                                                                                              | Concentration |
|------------------------------------------|-----------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 2,3,4,5,6-Pentafluorotoluene<br>771-56-2 | 212-233-7 | - | Flam. Liq. 3; Acute Tox. 4;<br>Skin Irrit. 2; Eye Irrit. 2; STOT<br>SE 3; H226, H302, H312,<br>H315, H319, H332, H335<br>Xn, R10 - R20/21/22 -<br>R36/37/38 | -             |

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

**General advice**  
Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**  
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**  
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**  
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**  
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire-fighters**  
Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**  
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**  
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**Environmental precautions**  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**  
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

**Precautions for safe handling**  
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.  
**Conditions for safe storage**  
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

**Respiratory protection**  
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**  
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Eye protection**  
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**  
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance            |                      |
|-----------------------|----------------------|
| Form                  | liquid               |
| Colour                | colourless           |
| Safety data           |                      |
| pH                    | no data available    |
| Melting point         | -30 °C - lit.        |
| Boiling point         | 117 °C - lit.        |
| Flash point           | 34 °C - closed cup   |
| Ignition temperature  | no data available    |
| Lower explosion limit | no data available    |
| Upper explosion limit | no data available    |
| Density               | 1,439 g/cm3 at 25 °C |
| Water solubility      | no data available    |

10. STABILITY AND REACTIVITY

**Chemical stability**  
Stable under recommended storage conditions.  
**Conditions to avoid**  
Heat, flames and sparks.  
**Materials to avoid**  
Strong oxidizing agents  
**Hazardous decomposition products**  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen fluoride

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**  
no data available  
**Skin corrosion/irritation**  
no data available  
**Serious eye damage/eye irritation**  
no data available  
**Respiratory or skin sensitization**  
no data available  
**Germ cell mutagenicity**  
no data available  
**Carcinogenicity**  
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**Reproductive toxicity**  
no data available  
**Specific target organ toxicity - single exposure**  
Inhalation - May cause respiratory irritation.  
**Specific target organ toxicity - repeated exposure**  
no data available  
**Aspiration hazard**  
no data available  
**Potential health effects**  

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| <b>Inhalation</b> | Harmful if inhaled. Causes respiratory tract irritation.  |
| <b>Ingestion</b>  | Harmful if swallowed.                                     |
| <b>Skin</b>       | Harmful if absorbed through skin. Causes skin irritation. |
| <b>Eyes</b>       | Causes serious eye irritation.                            |

**Signs and Symptoms of Exposure**  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information**  
RTECS: Not available

12. ECOLOGICAL INFORMATION

**Toxicity**  
no data available  
**Persistence and degradability**  
no data available  
**Bioaccumulative potential**  
no data available  
**Mobility in soil**  
no data available  
**PBT and vPvB assessment**  
no data available  
**Other adverse effects**  
no data available

13. DISPOSAL CONSIDERATIONS

**Product**  
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**  
Dispose of as unused product.

14. TRANSPORT INFORMATION

**ADR/RID**  
UN-Number: 1993 Class: 3 Packing group: III  
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (2,3,4,5,6-Pentafluorotoluene)  
**IMDG**  
UN-Number: 1993 Class: 3 Packing group: III EMS-No: F-E, S-E  
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (2,3,4,5,6-Pentafluorotoluene)  
Marine pollutant: No  
**IATA**  
UN-Number: 1993 Class: 3 Packing group: III  
Proper shipping name: Flammable liquid, n.o.s. (2,3,4,5,6-Pentafluorotoluene)

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION

**Text of H-code(s) and R-phrases(s) mentioned in Section 3**  

|             |                                                               |
|-------------|---------------------------------------------------------------|
| Acute Tox.  | Acute toxicity                                                |
| Eye Irrit.  | Eye irritation                                                |
| Flam. Liq.  | Flammable liquids                                             |
| H226        | Flammable liquid and vapour.                                  |
| H302        | Harmful if swallowed.                                         |
| H312        | Harmful in contact with skin.                                 |
| H315        | Causes skin irritation.                                       |
| H319        | Causes serious eye irritation.                                |
| H332        | Harmful if inhaled.                                           |
| H335        | May cause respiratory irritation.                             |
| Skin Irrit. | Skin irritation                                               |
| Xn          | Harmful                                                       |
| R10         | Flammable.                                                    |
| R20/21/22   | Harmful by inhalation, in contact with skin and if swallowed. |
| R36/37/38   | Irritating to eyes, respiratory system and skin.              |

  
**Further information**  
For R&D use only. Not for drug, household or other uses.



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WARRANTY:  
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.