

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Perfluoro compounds
(primarily compounds with 7 carbons)

CHEMICAL FORMULA: C7F16

PRODUCT CODE:

COMPANY NAME:

PELCHEM: The Chemical Division of NECSA

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2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME OF SUBSTANCE:

Perfluoroheptane, Tech Mixture
Perfluoroheptane,
of isomers

SYNONYMS:

Hexadecafluoroheptane,
Perfluoro-n-heptane

UN No:

CAS-No:

335-57-9

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Irritant, irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advise. Wear suitable protective clothing.

4. FIRST AID MEASURES

EYES:

Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

SKIN:

Wash affected area with soap and water with copious amounts of water. Wash contaminated clothing before reuse.

INGESTION:

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. If signs/symptoms continue, call a physician.

OTHER INFORMATION:

This product is not expected to be irritating to the eyes, skin or respiratory system at room temperature conditions. This assessment does not account for contaminants from product use. The suggested first aid measures are basic first aid measures for removal of foreign materials from the skin and/or eyes.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Non-flammable. Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

SPECIAL FIRE-FIGHTING PROCEDURES:

When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head. No unusual effects are anticipated during fire extinguishing operations. Avoid breathing the products and substances that may result from the thermal decomposition of the substances that may result from the thermal decomposition of the product or the other substances in the fire zone. Keep containers cool with water spray when exposed to fire to avoid rupture.

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS:

Exposure to extreme heat can give rise to thermal decomposition. Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Cover with dry lime or soda ash, pick up, keep in a closed container and hold for waste disposal. Ventilate area and wash spill site after material pickup is completed.

7. HANDLING AND STORAGE

EYE PROTECTION:

As a good industrial hygiene practice wear safety glasses with side shields.

SKIN PROTECTION:

Gloves are not required.

RECOMMENDED VENTILATION:

As a good industrial hygiene practice for those situations where the fluid might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines.

RESPIRATORY PROTECTION:

Avoid prolonged breathing of vapours.

Avoid breathing of thermal decomposition products. Use a NIOSH approved respirator based on airborne concentrations: half-mask supplied air respirator, full-face supplied air respirator.

Store under normal warehouse conditions.

No smoking. Smoking while using this product can result in contamination of the tobacco or/ or smoke and lead to the formation of the hazardous decomposition products mentioned in the Reactivity Data section of this MSDS.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EYE CONTACT:

Contact with eyes during product use is not expected to result in significant irritation

SKIN CONTACT:

Contact with the skin during product use is not expected to result in significant irritation.

INHALATION:

Health effects from inhalation are not expected unless the product is over heated and decomposition occurs.

IF SWALLOWED:

Ingestion is not a likely route of exposure to this product.

OTHER HEALTH HAZARD INFORMATION:

If the product is exposed to extreme conditions of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur.

Hydrogen fluoride has and ACGIH threshold limit value of 3 ppm (as fluoride) as a ceiling limit and an OSHA PEL of 3ppm of fluoride as an eight hour Time-Weighted Average and 6ppm of fluoride as a short term exposure limit. The odour threshold for HF is ppm, providing good warning properties for exposure.

Perfluoroisobutylene has and ACGIH threshold limit value of ppm parts of air as a ceiling limit or 0.082 milligrams per cubic meter as a ceiling limit.

OTHER/GENERAL PROTECTION:

Chemical safety goggles.

Rubber gloves.

NIOSH/MSHA-approved respirator.

Safety shower and eye bath.

Mechanical exhaust required.

Do not breathe vapour.

Do not get in eyes, on skin, on clothing.

Avoid prolonged or repeated exposure.

Wash thoroughly after handling.

Irritant.
Keep tightly closed.
Store in a cool dry place.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical properties:

Appearance and odour: Colourless liquid
Boiling point: 75 - 90°C
Vapour pressure: ca. 79 mmHg calc @ 20°C
Vapour density: ca. 13.4 air = 1 calc @ 20°C
Evaporation rate: > 1.0 BuOAc = 1
Solubility in water: nil
Specific gravity: ca. 1.7 water = 1
Percent volatile: ca. 100%
pH: n/a
Viscosity: ca. 0.7 centistokes at 20°C
Melting point: n/a
Flash point: none
Flammable limits LEL: Non-flammable
Flammable limits UEL: Non-flammable
Auto ignition temp.: Non-flammable

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

INCOMPATIBILITIES:

Finely divided active metals, Alkali and alkaline earth metals. Strong oxidising agents.

HAZARDOUS DECOMPOSITION PRODUCTS:

Toxic fumes of: carbon monoxide, carbon dioxide, hydrogen fluoride

HAZARDOUS POLYMERISATION:

Hazardous polymerisation will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

May be harmful by inhalation, ingestion, or skin absorption. Vapour or mist is irritating to the eyes, mucous membranes and upper respiratory tract.
Causes skin irritation.

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

12. ECOLOGICAL INFORMATION

SPILL RESPONSE:

Observe precautions from other sections. In accordance with good industrial practice, provide exhaust ventilation for large spills or in confined spaces. Collect spilled material with an absorbent. Place in an approved container.

13. DISPOSAL CONSIDERATIONS

Dissolve or mix the material with a combustible solvent and burn in chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

As a disposal alternative, incinerate in the presence of a combustible material in an industrial or commercial facility capable of handling halogenated waste. Reclaim if feasible. For information on product return, contact your distributor.

14. TRANSPORT INFORMATION

Not regulated all transportation modes.

15. REGULATORY INFORMATION**APPLICABLE REGULATIONS:**

Refer to country of destination.

SAFETY AND RISK PHRASES:

Refer to country of destination.

16. OTHER INFORMATION

None.

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