

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: 3-(BICYCLO [2.2.1]HEPT-5EN-2-YL)-1,1,1-TRIFLUORO-2-TRIFLUOROMETHYLPROPAN-2-OL (CAS # 196314-61-1)

Synonym: HEXAFLUOROISOPROPOXYMETHLY NORBORNENE (HFIPNB)

Chemical Formula: C₁₁H₁₂F₆O

Recommended Use: Research & Development; **Not listed on TSCA**

Uses Advised Against:

MANUFACTURER

HALOCARBON PRODUCTS CORPORATION
1100 Dittman Court
North Augusta, SC

Website: www.halocarbon.com

Email: sds@halocarbon.com

Emergency Number: (803)278-3504
Customer Service & Sales (201)262-8899

Prepared by: MSDS Coordinator

Emergency CHEMTREC Phone: 800 424-9300 United States 001-703-527-3887 International & Maritime

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquid H226 (Category 3)

Causes skin burns and eye damage ,H314

Can cause eye damage (Category 1), H318

May cause respiratory irritation, H335

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

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word: Warning, Danger

Hazard statement(s)

H226 Flammable liquid.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Precautionary statement(s)

P210 Keep away from ignition sources.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ eye protection/ face protection.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS#	OSHA PEL	ACGIH TLV	Other Limits
3-(Bicyclo[2.2.1]hept-5en-2-yl)-1,1,1-trifluoro-2-trifluoromethylpropan-2-ol	196314-61-1	None	None	None

OSHA HAZARD RATING:

This product contains the following toxic chemical(s) subject to Section 313 title III reporting requirements (40 CFR Part 372).

None

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. Get medical attention immediately. If breathing has stopped give artificial respiration if necessary. If breathing is difficult administer oxygen by authorized personnel only until person is able to breathe easily.

Skin: Wash affected area immediately for 15 minutes. Remove contaminated clothing and shoes. Seek medical help.

Eye: Flush eyes with plenty of water for at least 15 minutes. Get medical help immediately

Oral: If swallowed get medical attention.

Other Health hazards: Chronic respiratory and skin conditions may worsen from exposure to this product.

5. FIREFIGHTING MEASURES

Flash Point/Method: 80C/Closed Cup Autoignition Temp: Not determined

Flammability Limits in Air LEL: NA UEL: NA

Extinguishing Media: carbon dioxide, regular dry chemical. Use methods appropriate for surroundings.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin or eyes. Flammable liquid, vapors may travel to ignition source and flash back.

Unusual fire and explosion Hazards: This material is a NFPA Level IIIA combustible liquid. Thermal decomposition products are corrosive and toxic. Hot vapor or mist may be susceptible to spontaneous combustion when mixed with air.

6. ACCIDENTAL RELEASE MEASURES

Spill, Leak or Release: Wear self-contained breathing apparatus and appropriate shoes and gloves. It is a combustible liquid. Evacuate area shut off all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Use only non-sparking tools. Prevent material from entering sewer, waterways or low areas. Contain spillage and collect with electrically protected vacuum or by soaking up using a noncombustible absorbent material and place in container for disposal. Ventilate area and wash spill site after pickup is complete. Hold for disposal.

Waste disposal: Dispose in accordance with all federal, state and local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Provide appropriate exhaust ventilation. Protect from physical damage and heat. Material may form explosive peroxides on long term exposure to air. Keep away from sources of ignition. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory: Under conditions of heavy exposure, use NIOSH approved respirator. Self-contained breathing apparatus for emergency use.

Ventilation: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Eye protection: Safety glasses or goggles and face shield.

Gloves: Wear appropriate chemical resistant gloves.

Other equipment: Eyewash and quick drench shower facilities should be available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Colorless to pale yellow liquid with a pungent odor.

Boiling point: > 200C at atmospheric pressure Vapor Pressure: Not Available

Melting point: Not determined Vapor Density (Air = 1): >1

Specific Gravity (H₂O=1): 1.3 g/mL Solubility in Water: insoluble

10. STABILITY AND REACTIVITY

Unstable Conditions to Avoid: Protect from physical damage and heat

Stable Material may form explosive peroxides on long term exposure to air.

Incompatibility (materials to avoid): oxidizing agents, reducing agents

Hazardous Combustion or Decomposition Products: Includes toxic fumes of carbon dioxide, carbon monoxide, hydrogen fluoride.

Hazardous Polymerization: May occur Will not occur

Conditions to Avoid: N/A

11. TOXICOLOGICAL INFORMATION

To the best of our knowledge physical properties, health hazards and toxicological properties of this product have not been thoroughly investigated.

Material is very destructive to tissue of the mucous membrane and upper respiratory tract. It can cause burns and skin irritation. Acute exposure may cause nose, throat and lung irritation. It is a lachrymator. Exposure to eyes in the case of other fluorinated alcohols such as HFIP has been known to cause blindness and eye corrosion with corneal and conjunctival ulceration.

Acute oral toxicity in rat: LD50: 300-500 mg/kg

Acute dermal toxicity in rabbit: tests showed dermal corrosion, slight edema, scabbing and scar tissue, pale green colored dermal necrosis.

Material is classified as corrosive and causes burns.

Primary routes of entry: Inhalation Skin Eyes Oral

Carcinogenicity listing: [No] NTP [No] IARC [No] OSHA

Other: No

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Offer surplus and non-recyclable solutions to a licensed disposal company

14. TRANSPORT INFORMATION

1. Hazardous Materials/Dangerous Goods Shipping Regulations

U.S. (49CFR): Proper Shipping Name: Corrosive liquids, N.O.S. (Hexafluoroisopropanol norbornene)

Hazard Class: 8 ID No.: UN 1760

Packaging Group: III

IATA: Proper Shipping Name: Corrosive liquids, N.O.S. (Hexafluoroisopropanol norbornene)

Hazard Class: 8 ID No.: UN 1760

Packaging Group: III

IMDG: Proper Shipping Name: Corrosive liquids, N.O.S. (Hexafluoroisopropanol norbornene)

Hazard Class: 8 ID No.: UN 1760

Packaging Group: III

15. REGULATORY INFORMATION

H226 Flammable liquid and vapor

H302 Harmful if swallowed.

H314 Causes skin burns and eye damage.

H318 Causes serious eye damage/ eye irritation.

H335 May cause respiratory irritation.

It is not listed on TSCA inventory. For R&D purposes only.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only. Halocarbon shall not be held liable for any damages resulting from handling this product.

Reformatted: July 14th 2015