



Name: Pentafluoropropanol  
 Code: 1-270815-200, 1-270815-500, 1-270816-200, 1-270817-200

..... **SAFETY DATA SHEET** .....

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY** .....

- 1.1 Product Identifier
  - Name Pentafluoropropanol
  - Code 1-270815-200, 1-270815-500, 1-270816-200, 1-270817-200
- 1.2 Use of Substance/Mixture
  - Use Analytical Reagent for Gas Chromatography
- 1.3 Details of Manufacturer/Supplier
  - Company Regis Technologies, Inc.  
 8210 N. Austin Avenue  
 Morton Grove, IL 60053  
 847-967-6000; 800-323-8144 (toll free)  
 Email: cservice@registech.com  
 www.registech.com
- 1.4 Emergency Telephone
  - INFOTRAC 800-535-5053 [U.S.A.]

**SECTION 2 HAZARDS IDENTIFICATION** .....

2.1 Classification of the Substance or Mixture

GHS Classification

Health Hazards

Acute toxicity (oral)	Category 4	H302
Skin Corrosion / Irritation	Category 2	H315
Serious Eye Damage / Irritation	Category 2	H319
Specific Target Organ Toxicity – Single Exposure, Respiratory System	Category 3	H335

GHS Label Elements

Pictograms or hazard symbols



Signal Word Warning

Hazard Statement

- H302 – Harmful if swallowed.
- H315 + H519 – Causes skin and serious eye irritation.
- H335 – May cause respiratory irritation.

Precautionary Statements

- [Prevention] P280 – Wear protective gloves/eye protection/face protection.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- [Response] P301+P330+P331 – IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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.
- P314 – Get medical advice/attention if you feel unwell.

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[Storage] P402+P404 – Store in a dry place. Store in a closed container.  
 P403+P235 – Store in a well-ventilated place. Keep cool.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

Name: Pentafluoropropanol  
 Synonyms: 2,2,3,3,3-Pentafluoropropanol; PFPOH

Hazardous components

Component	Classification	Concentration
2,2,3,3,3-Pentafluoropropanol	Acute Tox 4; Skin Irr. 2; Eye Irr. 2; STOT SE 3; H302; H315; H519; H335	≥ 98-100 %
CAS No. 422-05-9		
EC No. 207-012-7		

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

**SECTION 4 FIRST AID MEASURES**

- 4.1 Description of first aid measures
- General: Consult a physician if feeling unwell. Show this safety data sheet to the doctor in attendance. Move out of any dangerous area.
  - Eye contact: Rinse eyes with plenty of water for at least 15 minutes; lift eyelids occasionally. If irritation persists, consult physician.
  - Skin contact: Immediately remove contaminated clothing and shoes, then wash skin with soap and plenty of water. If irritation persists, consult physician.
  - Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and keep person warm and at rest. Consult physician.
  - Ingestion: Avoid vomiting. Consult physician immediately.
  - Physician note: Symptomatic and supportive care. There is no specific antidote.

4.2 Most important symptoms and effects, both acute and delayed.  
 Itching or redness or inflammation of skin or eyes, including tearing. Coughing or difficulty breathing.

4.3 Indication of immediate medical attention and special treatment needed.  
 No data available.

**SECTION 5 FIRE-FIGHTING MEASURES**

- 5.1 Suitable Extinguishing Media  
 Water spray, carbon dioxide, dry chemical, sand, or alcohol-resistant foam.
- 5.2 Specific hazards arising from the chemical.  
 Emits toxic fumes under fire conditions. Produces carbon oxides, hydrogen fluoride upon combustion.
- 5.3 Advice for fire-fighters  
 Wear self-contained breathing apparatus (SCBA) if necessary.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment, and emergency procedures  
 For non-emergency personnel - Avoid material contact with skin or eyes. Do not breath vapors or mists. Evacuate unnecessary personnel from area, observe emergency procedures, consult an expert.

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For emergency responders – Use protective equipment for organic vapor/mists and dust conditions. See Section 8.3.

- 6.2 Environmental precautions  
Prevent material from entering drains.
- 6.3 Methods of clean up  
Evacuate unnecessary people from area. Isolate spilled material.  
Ventilate area. Eliminate all ignition sources. Use spark proof tools.  
If neat or in solution, mix with sand or similar inert adsorbent material or spill pillow.  
Sweep up, seal in appropriate hazardous waste container, and hold for proper waste disposal.  
Keep out of water supplies and sewers. Wash spill site after material pickup is complete.

**SECTION 7 ..... HANDLING AND STORAGE.....**

- 7.1 Safe Handling Precautions  
Wear suitable protective equipment to avoid contact with skin and eyes, or inhalation of organic vapors/mists and dust.s  
Wash thoroughly after handling. Immediately remove contaminated clothing.  
Handle in a dry, well ventilated area. Use local exhaust if vapor can be generated.  
Keep away from ignition sources. Take precautionary measures against static discharge.  
Moisture sensitive. Handle under nitrogen.
- 7.2 Storage Conditions  
Store under inert gas in a tightly sealed container. Store in a cool, dry place suitable for combustible materials. Protect from moisture, ignition sources, and away from acids, acid chlorides, acid anhydrides, and strong oxidizing materials.

**SECTION 8 ..... EXPOSURE CONTROLS / PERSONAL PROTECTION.....**

- 8.1 Control parameters  
Exposure limits No data available.  
Environmental Do not empty into drains.
- 8.2 Appropriate engineering controls  
Safety shower and eye wash  
Local exhaust and mechanical ventilation required. Hood recommended. Fume scrubber.
- 8.3 Personal protection  
Eye/Face Chemical safety eyewear or goggles  
  
Hand Compatible chemical-resistant gloves: Rubber (e.g., natural rubber, neoprene, nitrile, or equivalent), Silver Shield®, Viton®  
  
Respiratory NIOSH/MSHA or European Standard EN 149 approved respirator for organic vapor/mists and dust if exposure limits are exceeded or irritation or other symptoms are experienced.  
  
Dermal (not hand) Protective Clothing (e.g., lab coat)  
  
Hygiene Avoid inhalation, ingestion; contact with eyes, skin, and clothing; and prolonged or repeated exposure. Wash thoroughly after handling. Wash contaminated clothing before reuse. Discard contaminated footwear.

**SECTION 9 ..... PHYSICAL AND CHEMICAL PROPERTIES .....**

- 9.1 Information on physical and chemical data  
  
Chemical Formula C<sub>3</sub>H<sub>3</sub>F<sub>5</sub>O  
Molecular Weight 150.05

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Form	liquid	
Appearance	clear, colorless	
Odor	No data available	
Odor threshold	No data available	
pH	No data available	
Melting/freezing point	No data available	
Boiling point:	80.6°C (177°F) at 997 hPa (748 mmHg)	
Flammability (liquid, solid)	No data available	
Flash Point	No data available	Method: No data available
Flammable limits (%v/v)	LEL (lower explosive limit)	No data available
	UEL (upper explosive limit)	No data available
Autoignition temperature	No data available	
Decomposition temperature	No data available	
OSHA Flammability Class	No data available	
Evaporation Rate (BuAc = 1.0)	No data available	
Vapor pressure (mmHg)	No data available	
Vapor density (air=1):	No data available	
Relative density (g/cm <sup>3</sup> )	1.509 (25°C)	
Water Solubility	Slight	
Water reactive	No	
Solubility (other)	No data available	
Partition coefficient: N-octanol/water	No data available	
Viscosity	No data available	

**SECTION 10** ..... **STABILITY AND REACTIVITY** .....

- 10.1 Reactivity  
Stable
- 10.2 Chemical Stability  
Stable if stored under nitrogen and protected from moisture and heat.
- 10.3 Possibility of hazardous reactions  
No data available.
- 10.4 Conditions to avoid  
Avoid incompatibilities.  
Protect from heat and ignition sources.  
Keep out of water supplies and sewers.
- 10.5 Incompatible materials  
Acids, acid chlorides, acid anhydrides  
Strong oxidizers
- 10.6 Hazardous decomposition products  
Combustion carbon oxides, hydrogen fluoride

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Decomposition No data available.

**SECTION 11** ..... **TOXICOLOGICAL INFORMATION**.....

11.1 Toxicological Information

Acute toxicity

Oral	orl rat LDLo 2250 mg/kg;	orl mus LD50 1 g/kg
Dermal	No data available.	
Inhalation	ihl <b>hmn</b> TCLo 300 mg/m <sup>3</sup> /3M;	ihl mus LC50:10 g/m <sup>3</sup>
Skin corrosion/irritation	No data available.	
Serious eye damage/irritation	No data available.	
Respiratory irritation	No data available.	
Respiratory or skin sensitization	No data available	
Germ cell mutagenicity	No data available	
Carcinogenicity	No data available	
IARC	No data available	
NTP	No data available	
Reproductive toxicity	No data available	
STOT-single exposure	Inhalation - May cause respiratory irritation.	
STOT-repeated exposure	No data available	
Aspiration hazard	No data available	
RTECS Number	UB8800000	

11.2 Further Information

Laboratory animal studies indicate that 2,2,3,3,3-Pentafluoropropanol may act as a general anesthetic following oral dosing.

**SECTION 12** ..... **ECOLOGICAL INFORMATION**.....

12.1 Ecotoxicity

Toxicity to Fish	No data available.
Toxicity to Crustacea	No data available.
Toxicity to Aq. Plants	No data available.
Toxicity to Bacteria	No data available.

12.2 Persistence and degradability No data available.

12.3 Bioaccumulative potential BCF = no data available and Log Kow = no data available.

12.4 Motility in soil No data available.

12.5 Results of PBT and vPvB assessment No data available.

12.6 Other adverse effects

Additional ecological information No data available. Do not discharge into the environment.

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**SECTION 13** ..... **DISPOSAL CONSIDERATIONS** .....

13.1 Disposal methods  
 U . S. EPA Waste Codes Not regulated.  
 Waste Characterization RCRA Hazard Class (40CFR 261): Not regulated.  
 (per U. S. regulations) Generator is responsible for proper waste characterization. NOTE: U. S. Federal and state hazardous waste regulations may differ considerably.  
 Waste Disposal That which cannot be recovered or recycled, should be disposed of in accordance with all applicable international, national, regional, state, and local laws. Do NOT dump into any sewer, on ground, or into any body of water.

**SECTION 14** ..... **TRANSPORT INFORMATION** .....

DOT, ADR/RID, IMDG/IMO, ICAO/IATA Not dangerous goods nor a marine pollutant

14.1 UN number None  
 14.2 UN proper shipping name None  
 14.3 Transport Hazard Class None  
 14.5 Packing group None  
 14.6 Environmental hazards Not applicable  
 14.6 Special precautions for user See Section 8 for exposure/personal protection guidance.

**SECTION 15** ..... **REGULATORY INFORMATION** .....

15.1 Safety, health and Environmental regulations specific for the product in question.  
 NFPA: H1 F1 R0 HMIS: H1 F1 R0

15.2 Chemical Inventory Lists

*Reviews, Standards, and Regulations*

..... Pentafluoropropanol  
 CAS number ..... 422-05-9  
 TSCA: .....Y  
 This compound is sold strictly for FDA or research and development use.  
 EINECS:.....Y  
 Number ..... 207-012-7  
 CERCLA [Section 103 (40 CFR 302.4)]:..... NL  
 RQ (lbs) ..... NA  
 RCRA Waste Code..... NL  
 Clean Air Act  
 [Section 112r (40 CFR 68)]:..... NL  
 TQ (lbs)..... NA  
 Contains Ozone Depleters (Class I or Class II) ..... N  
 [Section 103 (40 CFR 302.4)]:..... NL  
 SARA Title III Notification [40 CFR 302.4]:  
 Section 302/304 (EHS) Ingredient  
 [40 CFR 355.3] ..... NL  
 TPQ (lbs)..... NA  
 RQ (lbs) ..... NA  
 Section 313 Ingredient [40 CFR 372.65] ..... NL  
 SARA Hazards Acute.....Y Chronic..... N Fire.....N Pressure..... N Reactivity .....N  
 OSHA Process Safety [29 CFR 1910.119]: ..... NL  
 TQ (lbs)..... NA  
 State Lists: ..... NL  
 States..... NL  
 On CA 65 Significant Risk Level..... NL

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**SECTION 16** ..... **OTHER INFORMATION** .....

16.1 Full test of H-Statements referred to under Section 2 and 3.

Acute Tox.	Acute toxicity
Eye Irr.	Eye irritation
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Skin Irr.	Skin irritation
STOT SE	Specific Target Organ Toxicity – Single Exposure

The above information is believed to be correct to the best of our present state knowledge, but does not purport to be all-inclusive and shall be used only as a guide. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.

**Prepared by: Regis Technologies**

***This is the last page of this SDS.***