# 1. Identification

**Product Name**  
Pentafluoroproionic acid

**Cat No.**  
AC416920000; AC416920100; AC416920500; AC416922500

**CAS No**  
422-64-0

**Synonyms**  
Perfluoropropanoic acid

**Recommended Use**  
Laboratory chemicals.

**Uses advised against**  
Food, drug, pesticide or biocidal product use.

## Details of the supplier of the safety data sheet

**Company**  
Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number**  
For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**:+32 14 57 52 99

**CHEMTREC Tel. No.**  
**US**:001-800-424-9300 / **Europe**:001-703-527-3887

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# 2. Hazard(s) identification

**Classification**  
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Acute Inhalation Toxicity - Vapors**  
Category 4

**Skin Corrosion/Irritation**  
Category 1

**Serious Eye Damage/Eye Irritation**  
Category 1

**Specific target organ toxicity (single exposure)**  
Category 3

**Target Organs - Respiratory system.**

## Label Elements

**Signal Word**  
Danger

**Hazard Statements**  
Causes severe skin burns and eye damage
May cause respiratory irritation
Harmful if inhaled

Precautionary Statements
Prevention
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Response
Immediately call a POISON CENTER or doctor/physician
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Skin
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Ingestion
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propanoic acid, pentafluoro-</td>
<td>422-64-0</td>
<td>97</td>
</tr>
</tbody>
</table>

4. First-aid measures

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Take off contaminated clothing and shoes immediately. Immediate medical attention is required.

Inhalation
Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required.

Ingestion
Do NOT induce vomiting unless directed to do so by medical personnel. Call a physician immediately.

Most important symptoms and
Causes burns by all exposure routes. Product is a corrosive material. Use of gastric
effects

lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Notes to Physician
Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
No information available

Flash Point
No information available

Method -
No information available

Autoignition Temperature
No information available

Explosion Limits
Upper
No data available

Lower
No data available

Sensitivity to Mechanical Impact
No information available

Sensitivity to Static Discharge
No information available

Specific Hazards Arising from the Chemical
Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products
Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

6. Accidental release measures

Personal Precautions
Use personal protective equipment as required.

Environmental Precautions
Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and storage

Handling
Do not get in eyes, on skin, or on clothing. Do not breathe mist/vapors/spray. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not ingest. If swallowed then seek immediate medical assistance. Wash thoroughly after handling.

Storage.

8. Exposure controls / personal protection

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Pentafluoropropionic acid

Revision Date 26-Dec-2021

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Light brown</td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>96 °C / 204.8 °F</td>
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<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>40 mmHg @ 20 °C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>5.66</td>
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<tr>
<td>Specific Gravity</td>
<td>1.575</td>
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<td>Solubility</td>
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<tr>
<td>Partition coefficient; n-octanol/water</td>
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<tr>
<td>Autoignition Temperature</td>
<td>No information available</td>
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<tr>
<td>Decomposition Temperature</td>
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<td>Viscosity</td>
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<td>Molecular Weight</td>
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10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Incompatible products.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Oxidizing agent</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Thermal decomposition can lead to release of irritating gases and vapors</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Hazardous polymerization does not occur.</td>
</tr>
<tr>
<td>Hazardous Reactions</td>
<td>None under normal processing.</td>
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</table>
11. Toxicological information

Acute Toxicity

Product Information
No acute toxicity information is available for this product

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
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<tbody>
<tr>
<td>Propanoic acid, pentafluoro-</td>
<td>Not listed</td>
<td>Not listed</td>
<td>LC50 = 15500 mg/m³ (Rat) 2 h</td>
</tr>
</tbody>
</table>

Toxicologically Synergistic Products
No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation
Causes burns by all exposure routes

Sensitization
No information available

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
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<tbody>
<tr>
<td>Propanoic acid, pentafluoro-</td>
<td>422-64-0</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects
No information available

Reproductive Effects
No information available.

Developmental Effects
No information available.

Teratogenicity
No information available.

STOT - single exposure
Respiratory system

STOT - repeated exposure
None known

Aspiration hazard
No information available

Symptoms / effects, both acute and delayed
Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Endocrine Disruptor Information
No information available

Other Adverse Effects
The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains.

Persistence and Degradability
No information available

Bioaccumulation / Accumulation
No information available.

Mobility
No information available.

13. Disposal considerations

Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.
# 14. Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>UN-No</th>
<th>UN3265</th>
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<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Corrosive liquid, acidic, organic, n.o.s.</td>
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</tr>
<tr>
<td>Hazard Class</td>
<td>8</td>
<td></td>
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<tr>
<td>Packing Group</td>
<td>III</td>
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<tr>
<td>Hazard Class</td>
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<tr>
<td>Packing Group</td>
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<thead>
<tr>
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<th>UN3265</th>
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<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*</td>
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</tr>
<tr>
<td>Hazard Class</td>
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<td></td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
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</table>

<table>
<thead>
<tr>
<th>IMDG/IMO</th>
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<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Corrosive liquid, acidic, organic, n.o.s.</td>
<td></td>
</tr>
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<td>Hazard Class</td>
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<td>III</td>
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</tr>
</tbody>
</table>

# 15. Regulatory information

## United States of America Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA</th>
<th>TSCA Inventory notification - Active-Inactive</th>
<th>TSCA - EPA Regulatory Flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propanoic acid, pentafluoro-</td>
<td>422-64-0</td>
<td>X</td>
<td>ACTIVE</td>
<td>-</td>
</tr>
</tbody>
</table>

**Legend:**
- **TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
- X - Listed
- '-' - Not Listed

**TSCA 12(b) - Notices of Export**
- Not applicable

## International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>PICCS</th>
<th>ENCS</th>
<th>ISHL</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propanoic acid, pentafluoro-</td>
<td>422-64-0</td>
<td>-</td>
<td>X</td>
<td>207-021-6</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

**KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

## U.S. Federal Regulations

**SARA 313**
- Not applicable

**SARA 311/312 Hazard Categories**
- See section 2 for more information

**CWA (Clean Water Act)**
- Not applicable

**Clean Air Act**
- Not applicable

**OSHA - Occupational Safety and Health Administration**
- Not applicable

**CERCLA**
- Not applicable
California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant: N
DOT Severe Marine Pollutant: N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations
Mexico - Grade
No information available

Authorisation/Restrictions according to EU REACH

Safety, health and environmental regulations/legislation specific for the substance or mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>OECD HPV</th>
<th>Persistent Organic Pollutant</th>
<th>Ozone Depletion Potential</th>
<th>Restriction of Hazardous Substances (RoHS)</th>
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<tbody>
<tr>
<td>Propanoic acid, pentafluoro-</td>
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<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
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<td>Propanoic acid, pentafluoro-</td>
<td>422-64-0</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

16. Other information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Revision Date
26-Dec-2021
Print Date
26-Dec-2021
Revision Summary
This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS