


1. Identification of Substance / Mixture**Product Identifier**

Product Name	Pentafluoroethylphosphonic acid
Other Names	
Product Code	020005
CAS	103305-01-7
MDL	MFCD02177644
EINECS	N/A
REACH Registration Number	
Relevant Uses	Research and Development
Uses Advised Against	No uses advised against.

Supplier Details

Company	Fluorochem Limited
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Emergency Telephone	+44(0)1457 860111 (08:00 - 17:30)

2. Hazards Identification

Classification	Skin Corr. 1B
Signal Word	Danger
Pictograms	 GHS05
Hazards	H314 Causes severe skin burns and eye damage.
Precautions	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P280 Wear face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304+P340 IF INHALED: Remove person to fresh air and keep 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. P310 Immediately call a POISON CENTER/doctor. P321 Specific treatment. P363 Wash contaminated clothing before reuse. P405 Store locked up.
Other Classification Hazards	

3. Composition of Ingredients

SUBSTANCE				
Name	CAS	Einecs	Composition	Hazards
Pentafluoroethylphosphonic acid	103305-01-7	N/A	<= 100%	H314 Skin Corr. 1B

4. First Aid Measures

Eye contact	In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing and seek immediate medical attention.
Ingestion	If swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do not induce vomiting.
Inhalation	Remove person to fresh air and keep comfortable for breathing. Immediately seek medical attention. If breathing is irregular or stopped, administer artificial respiration.
Skin Contact	After contact with skin or hair, wash immediately with plenty of water and soap. Remove contaminated clothing immediately. Immediately seek medical attention.
General Advice	No additional advice.
Most Important Symptoms and	Severe burns may occur.

Effects

Immediate First Aid Measures

No additional first aid measures required.

5. Fire Fighting Measures

Suitable Fire Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Fire Extinguishing Media

No known unsuitable media.

Special Hazards

Thermal decomposition can lead to release of irritating gases and vapours.

Advice for Fire Fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

Personal Precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Keep personnel away from spill/leak.

Environmental Precautions

Do not let product enter drains or waterways. Avoid discharge into the environment.

Containment - Methods and Materials

Spill Response should only be carried out by trained or qualified personnel.

Referenced SDS Sections

For personal protection see section 8. For disposal see section 13.

7. Handling and Storage

Personal Precautions

Safe Handling

Wear appropriate personal protective equipment. Use only under a chemical fume hood ensuring adequate ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing. For precautions see section 2.2.

Protection Against Explosion and Fire

Where possible, use anti static and spark proof equipment when handling.

General Occupational Hygiene

Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

Conditions for Safe Storage and Incompatibilities

Managing Storage Risks

Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.

Storage Controls

No special requirements

Maintaining Integrity

Keep container tightly closed in a cool area away from sunlight or heat sources.

Other Advice

No other specific advice available.

Specific End Use(s)

No specific end uses are advised. The products supplied are for research purposes only.

8. Exposure Controls / Personal Protection

Control Parameters

Country	Info	Long Term (ppm)	Long Term (mgm3)	Short Term (ppm)	Short Term (mgm3)	Ceiling (ppm)	Ceiling (mgm3)	Other Unit	Remarks
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Engineering Measures

Use only under a chemical fume hood ensuring adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Face Protection

Wear tightly fitting safety goggles which adhere to European standard EN 166. Ensure eye bath is to hand.

Hand Protection

Handle with impermeable gloves. Inspect gloves before use. Gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it. 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.

Skin Protection

Wear appropriate protective clothing ensuring all skin is covered. Wear safety shoes that meet at least S1 standards. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection

Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under normal use conditions.

Hygiene Protection

Ensure hair or skin particles cannot enter the chemical container.

Environment Exposure Controls

Avoid discharge into the environment, see section 6.2.

9. Physical and Chemical Properties

State

Liquid

Appearance

Liquid

Odour

No data available.

No data available.

Odour Threshold	
pH	No data available.
Melting Point / Freezing Point	No data available.
Initial Boiling Point	No data available.
Boiling Range	No data available.
Flash Point	No data available.
Evaporation Rate	No data available.
Flammability	No data available.
Upper / Lower Flammability or Explosion Limits	No data available.
Vapour Pressure	No data available.
Vapour Density	No data available.
Relative Density	No data available.
Solubility	No data available.
Partition Coefficient	No data available.
Auto Ignition Temperature	No data available.
Decomposition Temperature	No data available.
Viscosity	No data available.
Explosive Properties	No data available.
Oxidising Properties	No data available.
Other information	No additional information available

10. Stability and Reactivity

Reactivity	No known reactivity, based on information available.
Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal storage conditions.
Conditions To Avoid	Excess heat. Exposure to moisture.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	No Data Available.

11. Toxicology Information

Acute Toxicity	No Toxicology data available for this product.
Skin Corrosion / Irritation	Strong corrosive effect on skin and mucous membranes.
Serious Eye Damage / Irritation	Strong corrosive effect.
Respiratory or Skin Sensitisation	No Toxicology data available for this product.
Germ Cell Mutagenicity	No Toxicology data available for this product.
Carcinogenicity	No Toxicology data available for this product.
Reproductive Toxicity	No Toxicology data available for this product.
STOT-single Exposure	No Toxicology data available for this product.
STOT-repeated Exposure	No Toxicology data available for this product.
Aspiration Hazard	No Toxicology data available for this product.
Additional Toxicology Information	No Toxicology data available for this product.

12. Ecological Information

Toxicity	No Ecological data available for this product.
Persistence and Degradability	No Ecological data available for this product.
Bio-Accumulative Potential	No Ecological data available for this product.
Mobility in Soil	No Ecological data available for this product.
Results of PBT and vPvB assessment	No Ecological data available for this product.
Endocrine Disrupting Properties	No Ecological data available for this product.
Other Adverse Effects	No Ecological data available for this product.

13. Disposal Considerations

Disposal Operations

Ensure product is disposed of by licensed waste carriers.

Disposal of Packaging

Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be recyclable if not contaminated.

14. Transport Information

IATA UN Number	3265	ADR UN Number	3265	IMDG UN Number	3265
IATA Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Pentafluoroethylphosphonic acid)	ADR Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Pentafluoroethylphosphonic acid)	IMDG Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Pentafluoroethylphosphonic acid)
IATA Packing Group	III	ADR Packing Group	III	IMDG Packing Group	III
IATA Hazard Class	8	ADR Hazard Class	8	IMDG Hazard Class	8
IATA Sub Class		ADR Sub Class		IMDG Sub Class	-
				IMDG Special Provisions	
				IMDG IBS Instructions	
				IMDG IBC Instructions	IBC03
				IMDG Tank Instructions	T7
				IMDG Tank Provisions	TP1, TP28

15. Regulatory Information**Regulatory Information**

As far as Fluorochem is aware, there are no further regulations controlling this product.

Chemical Safety Assessment

No Chemical Safety Assessment available for this product.

16. Other Information**Information Not Covered in Other Sections**

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
 RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association ICAO:International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the ICAO
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 CAS:Chemical Abstracts Service

Revision

1.376

Date Modified

03/11/2022

Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user. This SDS adheres to Regulation (EC) No 1907/2006.