

Part of Thermo Fisher Scientific Material Safety Data Sheet Revision Date 01-Sep-2010

Creation Date 01-Sep-2010

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Phosphorus pentoxide	
Cat No.	A244-500; A245-100; A245-500	
Synonyms	Phosphoric anhydride (Laboratory/Certified ACS)	
Recommended Use	Laboratory chemicals	
Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Emergency Telephone Number CHEMTREC®, Inside the USA: 800- 424-9300 CHEMTREC®, Outside the USA: 703- 527-3887	

2. HAZARDS IDENTIFICATION

DANGER!		
	Emergency Overview	
С	auses severe burns by all exposure routes. Hygroscopic.	
Appearance White	Physical State Solid	odor odorles:
Target Organs	Skin, Respiratory system, Eyes, Gastrointestinal tract (GI)	
Potential Health Effects		
Acute Effects Principle Routes of Exposure		
Eyes	Causes severe burns.	
Skin	Causes severe burns. May be harmful in contact with skin.	
Inhalation Ingestion	Causes severe burns. May be harmful if inhaled. Causes severe burns. May be harmful if swallowed.	
Chronic Effects	None known.	
See Section 11 for additional Toxicol	ogical information.	
Aggravated Medical Conditions	No information available.	

3. COMPOSITION/INFORMATION ON INGREDIENTS

Compone	ent	CAS-No	Weight %
Phosphorus pe	entoxide	1314-56-3	>95
	4. FIR	RST AID MEASURES	
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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 immed is required.	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.	
Inhalation	if victim ingested	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.	
Ingestion	Do not induce vo	Do not induce vomiting. Call a physician or Poison Control Center immediately.	
Notes to Physician	Treat symptomation	Treat symptomatically.	

5. FIRE-FIGHTING MEASURES

Flash Point Method	No information available. No information available.
Autoignition Temperature	No information available.
Explosion Limits Upper Lower	No data available No data available
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact Sensitivity to static discharge	No information available. No information available.
Specific Hazards Arising from the Chemical	

Specific Hazards Arising from the Chemical Non-combustible.

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	Health 3	Flammability 0	Instability 1	Physical hazards N/A
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6. ACCIDENTAL RELEASE MEASURES

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Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid dust formation.		
Environmental Precautions	Should not be released into the environment.		
Methods for Containment and Clean Up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.		
7. HANDLING AND STORAGE			

HandlingUse only under a chemical fume hood. Wear personal protective equipment. Do not get in
eyes, on skin, or on clothing. Avoid dust formation. Do not breathe vapors/dust. Do not ingest.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Store under an inert atmosphere.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures	Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.
Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
NIOSH IDLH: Immediately Dangerous to Life	e or Health

Personal Protective Equipment

Eye/face ProtectionSkin and body protectionRespiratory ProtectionRespiratory ProtectionWear appropriate protective gloves and clothing to prevent skin exposure.Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance
odor
Odor Threshold
рН
Vapor Pressure
Vapor Density
Viscosity
Boiling Point/Range
Melting Point/Range
Decomposition temperature
Flash Point
Evaporation Rate
Specific Gravity
Solubility
log Pow
Molecular Weight

Solid White odorless No information available. 1 5 g/l aq.sol. 1.3 mbar @ 388 °C 4.9 No information available. No information available. 340 - 360°C / 644 - 680°F No information available. No data available 141.94

9. PHYSICAL AND CHEMICAL PROPERTIES				
Molecular Formula O5 P2				
10. STABILITY AND REACTIVITY				
Stability	Hygroscopic. Air sensitive.			
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation. Exposure to air. Exposure to moist air or water.			
compatible Materials Strong oxidizing agents, Metals, Bases, Ammonia, copper				
azardous Decomposition Products None under normal use				
Azardous Polymerization does not occur.				
lazardous Reactions . None under normal processing				
11. TOXICOLOGICAL INFORMATION				

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phosphorus pentoxide	Not listed	Not listed	1.22 mg/L (Rat)1 h

Irritation	Causes severe burns by all exposure routes	
Toxicologically Synergistic Products	No information available.	
Chronic Toxicity		
Carcinogenicity	There are no known carcinogenic chemicals in this product	
Sensitization	No information available.	
Mutagenic Effects	No information available.	
Reproductive Effects	No information available.	
Developmental Effects	No information available.	
Teratogenicity	No information available.	
Other Adverse Effects	See actual entry in RTECS for complete information.	
Endocrine Disruptor Information	No information available	

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.
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14. TRANSPORT INFORMATION

DOT

UN-No	UN1807
Proper Shipping Name	PHOSPHORUS PENTOXIDE
Hazard Class	8
Packing Group	II

TDG

UN-No	UN1807
Proper Shipping Name	PHOSPHORUS PENTOXIDE
Hazard Class	8
Packing Group	II

IATA

UN-No	1807
Proper Shipping Name	PHOSPHORUS PENTOXIDE
Hazard Class	8
Packing Group	II

IMDG/IMO

UN-No	1807
Proper Shipping Name	PHOSPHORUS PENTOXIDE
Hazard Class	8
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Phosphorus pentoxide	Х	Х	-	215-236-	-		Х	Х	Х	Х	KE-
				1							12129 X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Not applicable

SARA	311	/31	2 H	aza	rdous	Categorization
	-					-

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act Not applicable

Clean Air Act

Not applicable

OSHA

Not applicable

CERCLA Not Applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Phosphorus pentoxide	Х	Х	Х	-	-

U.S. Department of Transportation

Reportable Quantity (RQ):	Ν
DOT Marine Pollutant	Ν
DOT Severe Marine Pollutant	Ν

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade

No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

E Corrosive material



16. OTHER INFORMATION

Prepared By	Regulatory Affairs Thermo Fisher Scientific Tel: (412) 490-8929
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Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of MSDS