

Material Safety Data Sheet

Phosphorus oxychloride, 99%

ACC# 99413

Section 1 - Chemical Product and Company Identification

MSDS Name: Phosphorus oxychloride, 99%

Catalog Numbers: AC191290000, AC191290010, AC191290050, AC191292500

Synonyms: Phosphoryl chloride

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
10025-87-3	Phosphorus oxychloride	99%	233-046-7

Hazard Symbols: T+ C

Risk Phrases: 14 22 26 35 48/23

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless clear liquid. Moisture sensitive.

Target Organs: Liver, lungs, respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye burns. Lachrymator (substance which increases the flow of tears). Causes redness and pain. May cause visual disturbances.

Skin: Causes skin burns. Causes redness and pain.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract. Toxic if inhaled. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Chronic: Not available.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid immediately. Wash mouth out with water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Reacts violently with water. Reacts with water to form acidic gases which when in contact with metal may liberate flammable and/or hydrogen gas.

Extinguishing Media: Do NOT use alcohol foams. Use carbon dioxide or dry chemical. DO NOT USE WATER!

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: Not published.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Section 7 - Handling and Storage

Handling: Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.
Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area. Store protected from moisture. Store under nitrogen.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Phosphorus oxychloride	0.1 ppm TWA	0.1 ppm TWA; 0.6 mg/m3 TWA	none listed

OSHA Vacated PELs: Phosphorus oxychloride: 0.1 ppm TWA; 0.6 mg/m3 TWA

Personal Protective Equipment

Eyes: Not available.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Appearance: colorless

Odor: pungent odor

pH: Not available.

Vapor Pressure: 36 mbar @ 20 deg C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: 1.11 mPa.s @ 20 deg C

Boiling Point: 105.7 deg C

Freezing/Melting Point: 1.25 deg C

Decomposition Temperature: Not available.

Solubility: Reacts.

Specific Gravity/Density: 1.6450g/cm3

Molecular Formula: POCl₃

Molecular Weight: 153.33

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, exposure to moist air or water.

Incompatibilities with Other Materials: Metalen, sterke base, alcoholen, aminen, fenol.

Hazardous Decomposition Products: Hydrogen chloride, phosphine, oxides of phosphorus.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 10025-87-3: TH4897000

LD50/LC50:

CAS# 10025-87-3:

Inhalation, mouse: LC50 = 404 mg/m3/2H;

Inhalation, rat: LC50 = 32 ppm/4H;

Oral, mouse: LD50 = 327 mg/kg;

Oral, rat: LD50 = 36 mg/kg;

Oral, rat: LD50 = 380 mg/kg;

Carcinogenicity:

CAS# 10025-87-3: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Neurotoxicity: No data available.

Mutagenicity: No data available.

Other Studies: The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	PHOSPHORUS OXYCHLORIDE				No information available.
Hazard Class:	8				
UN Number:	UN1810				
Packing Group:	II				

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 10025-87-3 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

CAS# 10025-87-3: 1000 lb final RQ; 454 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 10025-87-3: 500 lb TPQ

SARA Codes

CAS # 10025-87-3: acute, chronic, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 10025-87-3 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 10025-87-3 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T+ C

Risk Phrases:

R 14 Reacts violently with water.

R 22 Harmful if swallowed.

R 26 Very toxic by inhalation.

R 35 Causes severe burns.

R 48/23 Toxic : danger of serious damage to health
by prolonged exposure through inhalation.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves
and eye/face protection.

S 45 In case of accident or if you feel unwell, seek
medical advice immediately (show the label where
possible).

S 7/8 Keep container tightly closed and dry.

WGK (Water Danger/Protection)

CAS# 10025-87-3: 1

Canada - DSL/NDSL

CAS# 10025-87-3 is listed on Canada's DSL List.

Canada - WHMIS

WHMIS: Not available.

Canadian Ingredient Disclosure List

CAS# 10025-87-3 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

CAS# 10025-87-3: OEL-AUSTRALIA:TWA 0.1 ppm (0.6 mg/m³);STEL 0.5 ppm (3 mg/m³) OEL-BELGIUM:TWA 0.1 ppm (0.63 mg/m³);STEL 0.5 ppm (3.1 mg/m³) OEL-DENMARK:TWA 0.1 ppm (0.6 mg/m³) OEL-FINLAND:STEL 0.5 ppm (3 mg/m³);Skin OEL-FRANCE:TWA 0.1 ppm (0.6 mg/m³) OEL-GERMANY:TWA 0.2 ppm (1 mg/m³) OEL-THE NETHERLANDS:TWA 0.1 ppm (0.6 mg/m³) OEL-RUSSIA:STEL 0.05 mg/m³;Skin OEL-SWITZERLAND:TWA 0.1 ppm (0.6 mg/m³);STEL 0.2 ppm (1.2 mg/m³) OEL-TURKEY:TWA 0.5 ppm (3 mg/m³) OEL-UNITED KINGDOM:TWA 0.2 ppm (1.2 mg/m³);STEL 0.6 ppm OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 3/20/2003

Revision #0 Date: Original.

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