



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Arsenic (V) oxide**
PRODUCT NUMBER: 1157
CAS NUMBER: 1303-28-2
SYNONYMS: Arsenic acid anhydride, Diarsenic pentoxide, arsenic pentoxide

MANUFACTURER:

Prochem, Inc.
826 Roosevelt Road
Rockford, IL 61109

PHONE: 815-398-1788
FAX: 815-398-1810
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H300	Fatal if swallowed
H331	Toxic if inhaled
H350	May cause cancer

Precautionary Phrases

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P281	Use personal protective equipment as required.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P405	Store locked up

EYE CONTACT: May cause mild to severe irritation of the eyes.

SKIN CONTACT: May cause irritation of the skin, ulceration, spotty pigmentation, dermatitis, and skin cancer.

INHALATION: May be severely irritating to the nose and respiratory tract. May induce perforation of the nasal spectrum and cause arsenic poisoning.

INGESTION: Ingestion may lead to nausea, vomiting, bloody diarrhea, weakness, low blood pressure, shock, coma, and death.

ACUTE HEALTH EFFECTS: May be irritating to skin, eyes, and respiratory tract. May cause garlic breath odor, nausea, vomiting, bloody diarrhea, weakness, shock, and coma.

CHRONIC HEALTH EFFECTS: Prolonged exposure to arsenic compounds may cause loss of appetite, dermatitis, diarrhea, kidney and liver damage, nervous disorders, and cancer to skin, lungs, and liver.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 3 Flammability: 0 Reactivity: 1

NFPA RATING:

Health: 2 Fire: 0 Reactivity Hazard: 1

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: As₂O₅

Molecular Weight: 229.84

CHEMICAL NAME	CAS#	%	ACGIH (TLV)	OSHA (PEL)
Arsenic (V) oxide	1303-28-2	100	0.01 mg/m ³ (as As)	0.01 mg/m ³ (as As)

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediately medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Not applicable

AUTO IGNITION TEMPERATURE: No data

EXPLOSION LIMITS: No data

EXTINGUISHING MEDIUM: Carbon dioxide or dry powder

SPECIAL FIRE FIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire, toxic fumes of arsenous oxide may be produced.

UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear protective equipment and ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS: Do not allow material to be released into the environment. Do not let enter drains.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Small spills can be mixed with vermiculite or sodium carbonate and swept up.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Handle under dry protective gas. Keep container tightly closed. Avoid forming airborne dust. Avoid contact with skin and eyes. Be sure to use adequate exhaust or ventilation.

CONDITIONS FOR SAFE STORAGE: Store material in a tightly sealed container in a dry and well-ventilated area. Store under dry inert gas. Store away from water/moisture. Do not store with acids. Store away from oxidizing agents.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EYE PROTECTION: Always wear approved safety glasses with side shields, or safety goggles, face shield when handling a chemical substance in the laboratory.

SKIN PROTECTION: Chemical resistant gloves.

VENTILATION: Handle in an efficient chemical fume hood.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

RESPIRATOR: Wear an approved respirator. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

COMPONENTS WITH VALUES THAT REQUIRE MONITORING AT THE WORKPLACE:

PEL (USA): Long-term value: 0.01 mg/m³ as As; 29CFR1910.1018

REL (USA): Long-term value: 0.5 mg/m³ as Sb

TLV (USA): Long-term value: 0.01 mg/m³

EV (Canada): Short-term value: 0.05 mg/m³ Long-term value: 0.01 mg/m³ as As

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: White powder

MOLECULAR WEIGHT: 229.84

BOILING POINT: No data

MELTING POINT: 315° C (dec.)

SPECIFIC GRAVITY: 4.32 gm/ml

VAPOR PRESSURE: No data

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Moisture sensitive solid

HAZARDOUS POLYMERIZATION: No hazardous polymerization

CONDITIONS TO AVOID: Nascent hydrogen or metal hydrides may produce highly toxic arsine gas.

INCOMPATIBILITY: Active metals and strong bases

DECOMPOSITION PRODUCTS: None

SECTION 11 TOXICOLOGICAL DATA

RTECS: Oral (rat); LD50: 8 mg/kg. Oral (mouse); LD50: 55 mg/kg. Subcutaneous (rabbit; LDLo: 12400 ug/kg. Intravenous (rabbit); LDLo: 6 mg/kg. Intratesticular (rat); TDLo: 4597 ug/kg. Subcutaneous (mouse); TDLo: 4597 ug/kg. Human fibroblast; DNA inhibition: 100 umol/L. Human leukocyte; Cytogenetic analysis: 1200 nmol/L.

CARCINOGENIC EFFECTS: Tumorigenic-Carcinogenic by RTECS criteria.

MUTAGENIC EFFECTS: Mutagen

TETRATOGENIC EFFECTS: Reproductive Effector

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

Do not allow product to reach ground water, watercourse, or sewage systems. Avoid transfer into the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local state and federal regulations.

SECTION 14 TRANSPORTATION DATA

Arsenic pentoxide

Class 6.1

UN1559

PG II

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 313 COMPONENTS: Arsenic (V) oxide

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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