



1. Product Name DIPHOSPHORUS TETRAIODIDE, 95%
Product Number 218650
2 - Hazards Identification
SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Causes burns. Irritating to respiratory system.
3 - Composition/Information on Ingredients
Product Name CAS # EC no Annex I
Index Number
DIPHOSPHORUS TETRAIODIDE 13455-00-0 236-646-7 None
Formula P₂I₄
Molecular Weight 569.57 AMU
4 - First Aid Measures
AFTER INHALATION
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
AFTER EYE CONTACT
Assure adequate flushing of the eyes by separating the eyelids with fingers.
AFTER INGESTION
If swallowed, wash out mouth with water provided person is conscious. Call a physician.
5 - Fire Fighting Measures
CONDITIONS OF FLAMMABILITY
Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.
EXTINGUISHING MEDIA
Suitable: Dry chemical powder.
SPECIAL RISKS
Specific Hazard(s): Emits toxic fumes under fire conditions.
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
6 - Accidental Release Measures
PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.
PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Avoid inhalation. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed. Handle and store under argon.

Incompatible Materials: Do not allow contact with water

Store at 2-8°C

SPECIAL REQUIREMENTS: Handle under inert gas. Air and light sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before

reuse. Discard contaminated shoes.

PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved

respirator, chemical-resistant gloves, safety goggles, other protective clothing. Faceshield (8-inch minimum).

9 - Physical and Chemical Properties

Appearance Color: Red

Form: Fine crystals

Property Value At Temperature or Pressure

pH N/A

BP/BP Range N/A

MP/MP Range 124 °C

Flash Point N/A

Flammability N/A

ALDRICH - 218650 www.sigma-aldrich.com Page 2

Autoignition Temp N/A

Oxidizing Properties N/A

Explosive Properties N/A

Explosion Limits N/A

Vapor Pressure N/A

SG/Density N/A

Partition Coefficient N/A

Viscosity N/A

Vapor Density N/A

Saturated Vapor Conc. N/A

Evaporation Rate N/A

Bulk Density N/A

Decomposition Temp. N/A

Solvent Content N/A

Water Content N/A
Surface Tension N/A
Conductivity N/A
Miscellaneous Data N/A
Solubility N/A
10 - Stability and Reactivity

STABILITY

Conditions of Instability: Light sensitive. Moisture.

Conditions to Avoid: Air sensitive. Moisture.

Materials to Avoid: Alcohols, Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine, Hydrogen iodide.

11 - Toxicological Information

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and

vomiting. Inhalation may result in spasm, inflammation and edema

of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Material is extremely destructive to tissue of the mucous

membranes and upper respiratory tract, eyes, and skin.

ROUTE OF EXPOSURE

Multiple Routes: Harmful if swallowed, inhaled, or absorbed through skin.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose

of this material. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

ALDRICH - 218650 www.sigma-aldrich.com Page 3

UN#: 3260

Class: 8

PG: II

Proper Shipping Name: Corrosive solid, acidic, inorganic, n.o.s.

IMDG

UN#: 3260

Class: 8

PG: II

Proper Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

Marine Pollutant: No

Severe Marine Pollutant: No

Technical Name: Required

IATA
UN#: 3260
Class: 8
PG: II
Proper Shipping Name: Corrosive solid, acidic,
inorganic, n.o.s.
Inhalation Packing Group I: No
Technical Name: Required
15 - Regulatory Information
CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES
INDICATION OF DANGER: C
Corrosive.
R-PHRASES: 34-37
Causes burns. Irritating to respiratory system.
S-PHRASES: 26-36/37/39-45
In case of contact with eyes, rinse immediately with plenty of
water and seek medical advice. Wear suitable protective
clothing, gloves, and eye/face protection. In case of accident
or if you feel unwell, seek medical advice immediately (show
the label where possible).
COUNTRY SPECIFIC INFORMATION
Germany
WGK: 3
Self-Classification

www.sparchem.com