

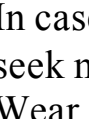
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 **Product identifiers**
Product name : N , N , N ' , N ' -Tetramethylphosphorodiamidic chloride
CAS-No. : 1605-65-8
- 1.2 **Relevant identified uses of the substance or mixture and uses advised against**
Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

- 2.1 **Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Skin corrosion (Category 1B)
Classification according to EU Directives 67/548/EEC or 1999/45/EC
Causes burns. Irritating to respiratory system.
- 2.2 **Label elements**
Labelling according Regulation (EC) No 1272/2008 [CLP]
Pictogram 
Signal word Danger
Hazard statement(s)
H314 Causes severe skin burns and eye damage.
Precautionary statement(s)
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
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 or doctor/ physician.
Supplemental Hazard Statements none

According to European Directive 67/548/EEC as amended.

- Hazard symbol(s) 
R-phrase(s)
R34 Causes burns.
R37 Irritating to respiratory system.
S-phrase(s)
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

- 2.3 **Other hazards** - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 **Substances**
Synonyms : Bis(dimethylamido)phosphoric chloride
Formula : C4H12CN2OP
Molecular Weight : 170,58 g/mol
Component Concentration
Bis(dime
thylamino)phosphinic chloride
CAS-No. 1605-65-8
EC-No. 216-517-1

4. FIRST AID MEASURES

- 4.1 **Description of first aid measures**
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 **Most important symptoms and effects, both acute and delayed**
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea
4.3 **Indication of any immediate medical attention and special treatment needed**
no data available

5. FIRE-FIGHTING MEASURES

- 5.1 **Extinguishing media**
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 **Special hazards arising from the substance or mixture**
Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus, Hydrogen chloride gas
5.3 **Advice for fire fighters**
Wear self contained breathing apparatus for fire fighting if necessary.
5.4 **Further information**
no data available

6. ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
6.2 **Environmental precautions**
Do not let product enter drains.
6.3 **Methods and materials for containment and cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
6.4 **Reference to other sections**
For disposal see section 13.

7. HANDLING AND STORAGE

- 7.1 **Precautions for safe handling**
Avoid inhalation of vapour or mist.
Normal measures for preventive fire protection.
7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Moisture sensitive.
7.3 **Specific end uses**
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Control parameters**
Components with workplace control parameters
8.2 **Exposure controls**
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment
Eye/face protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. 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.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 **Information on basic physical and chemical properties**
a) Appearance Form: clear, liquid
Colour: dark yellow
b) Odour no data available
c) Odour Threshold no data available
d) pH no data available
e) Melting point/freezing point no data available
f) Initial boiling point and boiling range 246 - 247 °C at 1.013 hPa
g) Flash point 113 °C - closed cup
h) Evaporation rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits no data available
k) Vapour pressure no data available
l) Vapour density no data available
m) Relative density 1,152 g/cm3 at 25 °C
n) Water solubility no data available
o) Partition coefficient: n-octanol/water no data available
p) Autoignition temperature no data available
q) Decomposition temperature no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available
9.2 **Other safety information**
no data available

10. STABILITY AND REACTIVITY

- 10.1 **Reactivity**
no data available
10.2 **Chemical stability**
no data available
10.3 **Possibility of hazardous reactions**
no data available
10.4 **Conditions to avoid**
no data available
10.5 **Incompatible materials**
Strong oxidizing agents
10.6 **Hazardous decomposition products**
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

- 11.1 **Information on toxicological effects**
Acute toxicity
no data available
Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitization
no data available
Germ cell mutagenicity
no data available
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity
no data available
Specific target organ toxicity - single exposure
no data available
Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard
no data available
Potential health effects
Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion May be harmful if swallowed. Causes burns.
Skin May be harmful if absorbed through skin. Causes skin burns.
Eyes Causes eye burns.
Signs and Symptoms of Exposure
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea
Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

- 12.1 **Toxicity**
no data available
12.2 **Persistence and degradability**
no data available
12.3 **Bioaccumulative potential**
no data available
12.4 **Mobility in soil**
no data available
12.5 **Results of PBT and vPvB assessment**
no data available
12.6 **Other adverse effects**
no data available

13. DISPOSAL CONSIDERATIONS

- 13.1 **Waste treatment methods**
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging
Dispose of as unused product.
14. **TRANSPORT INFORMATION**
14.1 **UN number**
ADR/RID: 3265 IMDG: 3265 IATA: 3265
14.2 **UN proper shipping name**
ADR/RID: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Bis(dimethylamino)phosphinic chloride)
IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Bis(dimethylamino)phosphinic chloride)
IATA: Corrosive liquid, acidic, organic, n.o.s. (Bis(dimethylamino)phosphinic chloride)
14.3 **Transport hazard class(es)**
ADR/RID: 8 IMDG: 8 IATA: 8
14.4 **Packaging group**
ADR/RID: II IMDG: II IATA: II
14.5 **Environmental hazards**
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 **Special precautions for user**
no data available

15. REGULATORY INFORMATION

- This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
no data available
15.2 **Chemical Safety Assessment**
no data available

16. OTHER INFORMATION

- Further information**
For R&D use only. Not for drug, household or other uses.
WARRANTY:
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.



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