

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

1.1 Product identifiers

Product name : Triamminetungsten(IV) tricarbonyl
CAS-No. : 58204-42-5

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]

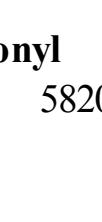
Substances, which in contact with water, emit flammable gases (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Reacts violently with water.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]



Signal word : Danger

Hazard statement(s) : H261 In contact with water releases flammable gases.

Precautionary statement(s)

P231 + P232 Handle under inert gas. Protect from moisture.

P422 Store contents under inert gas.

Supplemental Hazard Statements

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

Hazard symbol(s) : none

R-phrase(s) : R14 Reacts violently with water.

S-phrase(s) : S7 Keep container tightly closed.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : [W(NH₃)₃](CO)₃
Molecular Weight : 318,96 g/mol

Component : Concentration

Triammine tungsten(IV) tricarbonyl

CAS-No. : 58204-42-5

-

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

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

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

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Dry powder Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NO_x), Tungsten oxide

5.3 Precautions 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

Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. 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

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Never allow product to get in contact with water during storage.

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

Safety glasses with side-shields conforming to EN166 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

Flame retardant protective clothing. 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 particle respirator type N100 (US) or type P3 (EN 143) 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: solid

b) Odour : no data available

c) Odour Threshold : no data available

d) pH : no data available

e) Melting/freezing point : no data available

f) Initial boiling point and boiling range : no data available

g) Flash point : no data available

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 : no data available

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

Reacts violently with water.

10.4 Conditions to avoid

Incompatible materials

10.5 Strong oxidizing agents

no data available

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a) Acute toxicity

no data available

b) Skin corrosion/irritation

no data available

c) Serious eye damage/eye irritation

no data available

d) Respiratory or skin sensitization

no data available

e) Germ cell mutagenicity

no data available

f) Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.

REPRODUCTIVE

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

Signs and Symptoms of exposure

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

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