



# SAFETY DATA SHEET

**MATERION**

## 1. Identification

Product identifier	Tungsten Chloride	
Other means of identification		
SDS number	2PD	
Materion Code	2PD	
CAS number	13283-01-7	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	Materion Advanced Chemicals Inc.	
Address	407 N 13th Street 1316 W. St. Paul Avenue Milwaukee, WI 53233 United States	
Telephone	414.212.0290	
E-mail	advancedmaterials@materion.com	
Contact person	Laura Hamilton	
Emergency phone number	Chemtrec	800.424.9300

## 2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

### Label elements



Signal word	Danger	
Hazard statement	Causes severe skin burns and eye damage. Causes serious eye damage.	
Precautionary statement		
Prevention	Do not breathe dust/mist/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.	
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center/doctor. Wash/decontaminate removed clothing before reuse.	
Storage	Store locked up.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

## 3. Composition/information on ingredients

### Substances

Chemical name	Common name and synonyms	CAS number	%
Tungsten Chloride		13283-01-7	100

#### 4. First-aid measures

<b>Inhalation</b>	Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Get medical attention.
<b>Skin contact</b>	Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. Call a physician or Poison Control Center immediately.
<b>Eye contact</b>	Continue to rinse for at least 15 minutes and seek medical attention. Continue rinsing.
<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly. Call a poison center or doctor/physician.
<b>Most important symptoms/effects, acute and delayed</b>	Not available.
<b>General information</b>	Consult a physician. Show this safety data sheet to the doctor in attendance. Remove affected person from source of contamination.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemical, foam, carbon dioxide.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	Hydrogen chloride gas Tungsten oxide
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Wear necessary protective equipment. Avoid generation and spreading of dust. Avoid inhalation of dust and vapors. Ensure adequate ventilation.
<b>Methods and materials for containment and cleaning up</b>	Pick up and arrange disposal without creating dust. Sweep up or vacuum up spillage and collect in suitable container for disposal.
<b>Environmental precautions</b>	Prevent entry into drains.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Wear protective gloves/protective clothing/eye protection/face protection. Use this product with adequate ventilation. Handle under inert gas atmosphere in dry equipment.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container tightly closed and dry. Keep container in a well-ventilated place.

#### 8. Exposure controls/personal protection

##### Occupational exposure limits

##### US. ACGIH Threshold Limit Values

Material	Type	Value	Form
Tungsten Chloride (CAS 13283-01-7)	TWA	3 mg/m <sup>3</sup>	Respirable fraction.

##### US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Tungsten Chloride (CAS 13283-01-7)	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

Material	Type	Value
Tungsten Chloride (CAS 13283-01-7)	PEL	5 mg/m3
	STEL	10 mg/m3

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Adequate ventilation should be provided so that exposure limits are not exceeded.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves.
<b>Other</b>	Wear full protective clothing.
<b>Respiratory protection</b>	In case of inadequate ventilation use suitable respirator.
<b>Thermal hazards</b>	Not available.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Powder.
<b>Color</b>	Not available.
<b>Odor</b>	Slight chlorine.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	527 °F (275 °C)
<b>Initial boiling point and boiling range</b>	656.6 °F (347 °C)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 0.0000001 kPa (77 °F (25 °C))
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Molecular formula</b>	Cl6W

Molecular weight	396.54 g/mol
Specific gravity	3.52

## 10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Material reacts with water.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Not available.
Incompatible materials	Bases. Strong oxidizing agents. Strong acids. Reducing agents.
Hazardous decomposition products	Chlorine. Metal oxides. Hydrogen chloride.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.

Symptoms related to the physical, chemical and toxicological characteristics	Not available.
--	----------------

### Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.

### Carcinogenicity

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.

## 12. Ecological information

Ecotoxicity	The product contains a substance which may cause long-term adverse effects in the environment.
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.

Mobility in soil Not available.  
Other adverse effects Not available.

### 13. Disposal considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.  
Waste from residues / unused products Dispose of in accordance with local regulations.  
Contaminated packaging Do not re-use empty containers.

### 14. Transport information

#### DOT

UN number UN3260  
UN proper shipping name Corrosive solid, acidic, inorganic, n.o.s. (Tungsten chloride)  
Transport hazard class(es)  
Class 8  
Subsidiary risk -  
Packing group II  
Special precautions for user Not available.

#### IATA

UN number UN3260  
UN proper shipping name Corrosive solid, acidic, inorganic, n.o.s. (Tungsten hexachloride)  
Transport hazard class(es)  
Class 8  
Subsidiary risk -  
Packing group II  
Environmental hazards No.  
Special precautions for user Not available.

#### IMDG

UN number UN3260  
UN proper shipping name Corrosive solid, acidic, inorganic, n.o.s. (Tungsten hexachloride)  
Transport hazard class(es)  
Class 8  
Subsidiary risk -  
Packing group II  
Environmental hazards  
Marine pollutant No.  
EmS Not available.  
Special precautions for user Not available.

#### DOT





## 15. Regulatory information

### US federal regulations

#### Toxic Substances Control Act (TSCA)

##### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Skin corrosion or irritation  
Serious eye damage or eye irritation

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

## 16. Other information, including date of preparation or last revision

**Issue date** 03-25-2021

**Version #** 01

**Disclaimer** Not available.