



# SAFETY DATA SHEET

**MATERION**

## 1. Identification

<b>Product identifier</b>	<b>Tungsten Tetrachloride Oxide</b>	
<b>Other means of identification</b>		
SDS number	2PC	
Materion Code	2PC	
CAS number	13520-78-0	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	Materion Advanced Chemicals Inc.	
<b>Address</b>	407 N 13th Street 1316 W. St. Paul Avenue Milwaukee, WI 53233 United States	
<b>Telephone</b>	414.212.0290	
<b>E-mail</b>	advancedmaterials@materion.com	
<b>Contact person</b>	Laura Hamilton	
<b>Emergency phone number</b>	Chemtrec	800.424.9300

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger	
<b>Hazard statement</b>	Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Do not breathe dust or mists. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.	
<b>Response</b>	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/. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before re-use.	
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.	

Supplemental information None.

### 3. Composition/information on ingredients

#### Substances

Chemical name	Common name and synonyms	CAS number	%
Tungsten Tetrachloride Oxide		13520-78-0	100

### 4. First-aid measures

<b>Inhalation</b>	Move into fresh air and keep at rest. If breathing has stopped, perform artificial respiration and obtain medical help. Consult a physician for specific advice.
<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>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Get medical attention immediately. Continue rinsing.
<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. 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>	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
<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. Immediately evacuate personnel to safe areas.
<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>	Do not allow to enter drains, sewers or watercourses.

### 7. Handling and storage

<b>Precautions for safe handling</b>	Handle under inert gas. Protect from moisture.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container tightly closed in a dry and well-ventilated place. Avoid dust formation. Material should be stored under an inert atmosphere.

### 8. Exposure controls/personal protection

#### Occupational exposure limits

##### US. ACGIH Threshold Limit Values

Material	Type	Value	Form
Tungsten Tetrachloride Oxide (CAS 13520-78-0)	TWA	3 mg/m3	Respirable fraction.

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

Material	Type	Value
Tungsten Tetrachloride Oxide (CAS 13520-78-0)	STEL	3 mg/m3

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

Material	Type	Value
	TWA	1 mg/m3

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

Material	Type	Value
Tungsten Tetrachloride Oxide (CAS 13520-78-0)	PEL	1 mg/m3
	STEL	3 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>	Use approved safety goggles or face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves.
<b>Other</b>	Use protective gloves, goggles and suitable protective clothing.
<b>Respiratory protection</b>	In case of inadequate ventilation, use respiratory protection.
<b>Thermal hazards</b>	Not available.

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Solid.
<b>Form</b>	Not available.
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<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>	Not available.
<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.

Viscosity Not available.

**Other information**

Molecular formula CI4OW

**10. Stability and reactivity**

Reactivity Not available.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Not available.

Conditions to avoid Exposure to air.

Incompatible materials Strong oxidizing substances.

Hazardous decomposition products Hazardous decomposition products formed under fire conditions - Tungsten Oxide 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 No ecotoxicity data noted for the ingredient(s).

Persistence and degradability Not available.

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

### 13. Disposal considerations

Disposal instructions	Not available.
Waste from residues / unused products	Not available.
Contaminated packaging	Not available.

### 14. Transport information

#### DOT

UN number	UN3260
UN proper shipping name	Corrosive solid, acidic, inorganic, n.o.s. (Tungsten tetrachloride oxide)
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 tetrachloride oxide)
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 tetrachloride oxide)
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  
Specific target organ toxicity (single or repeated exposure)

#### 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 03-22-2021

Version # 01

Disclaimer Not available.