



# CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

**MATERION**

Product name: Chromium Targets

Issue date: 02-25-2019

Revision date: 07-27-2021

Version #: 02

SDS No: G24

## SECTION 1 Chemical product and company identification

Chinese name of chemical	铬目标
English name of chemical	Chromium Targets
Manufacturer/Supplier	Materion Advanced Materials
Address	6070 Parkland Boulevard Mayfield Heights, OH 44124 United States
Contact person	Theodore Knudson
Telephone	EH&S 1.216.383.4019
e-mail	ehs@materion.com
Emergency telephone number	See Section 16.
Issue date	02-25-2019
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SDS No	G24

## SECTION 2 Hazards identification

Emergency overview	The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.
GHS hazard categories	Not classified.
Label elements	
Pictograms	None.
Signal word	None.
Hazard statement	The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
Physical and chemical hazards	The product is stable and non-reactive under normal conditions of use, storage and transport. No unusual fire or explosion hazards noted.
Health hazards	Expected to be a low ingestion hazard. Direct contact with eyes may cause temporary irritation.
Environmental hazards	Very toxic to aquatic life with long lasting effects.
Supplemental information	For further information, please contact the Product Stewardship Department at +1.216.383.4019.

## SECTION 3 Composition/information on ingredients

Substance/mixture	Substance
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Chemical name	Concentration (%)	CAS Number
铬 Chromium	100	7440-47-3

## SECTION 4 First aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms and health effects</b>	None known.
<b>Personal protection for first-aid responders</b>	If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
<b>Notes to physician</b>	Treat symptomatically.

## SECTION 5 Fire-fighting measures

<b>Extinguishing media</b>	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
<b>Extinguishing media to avoid</b>	None known.
<b>Specific hazards</b>	This product is not flammable.
<b>Special fire fighting procedures</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers.
<b>Protection of fire-fighters</b>	Use protective equipment appropriate for surrounding materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted. None known.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6 Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	
<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. For personal protection, see section 8 of the SDS.
<b>For emergency responders</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.
<b>Environmental precautions</b>	Collect spillage.
<b>Clean-up methods and materials and containment measures</b>	Avoid dust formation. Stop the flow of material, if this is without risk. Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.
<b>Prevention of secondary hazards</b>	None known.

## SECTION 7 Handling and storage

<b>Handling</b>	Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Storage</b>	Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures.

## SECTION 8 Exposure controls/personal protection

### Exposure limits

China OELs. Occupational Exposure Limits for Hazardous Agents in the Workplace, Chemical Hazardous Agents (GBZ 2.1-2007)

Material	Type	Value
Chromium Targets	PC-TWA	0.05 mg/m3
Components	Type	Value
Chromium (CAS 7440-47-3)	PC-TWA	0.05 mg/m3

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Monitoring methods</b>	Follow standard monitoring procedures.
<b>Engineering measures</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Hand protection</b>	Wear gloves to prevent metal cuts and skin abrasions during handling.
<b>Eye protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear suitable protective clothing.
<b>Hygiene measures</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## SECTION 9 Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Light grey.
<b>Odor</b>	None.
<b>Odor threshold</b>	Not applicable.
<b>pH</b>	Not applicable.
<b>Melting point/freezing point</b>	3452 °F (1900 °C) / Not applicable.
<b>Boiling point, initial boiling point, and boiling range</b>	Not applicable.
<b>Flash point</b>	Not applicable.
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not applicable.
<b>Explosive limit - lower (%) temperature</b>	Not applicable.
<b>Explosive limit - upper (%)</b>	Not applicable.
<b>Explosive limit - upper (%) temperature</b>	Not applicable.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	Not applicable.
<b>Density</b>	7.14 g/cm <sup>3</sup> estimated
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	None known.
<b>Other data</b>	
<b>Explosive properties</b>	Not explosive.
<b>Molecular formula</b>	Cr

<b>Molecular weight</b>	52 g/mol
<b>Oxidizing properties</b>	Not oxidizing.
<b>Viscosity</b>	Not applicable.

## SECTION 10 Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Strong acids.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## SECTION 11 Toxicological information

<b>Acute toxicity</b>	None known.
<b>Routes of exposure</b>	Not available.
<b>Symptoms</b>	None known.
<b>Skin corrosion/irritation</b>	Not likely, due to the form of the product.
<b>Serious eye damage/eye irritation</b>	None known.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitizer</b>	Not a skin sensitizer.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.

### China OELs for hazardous agents in the workplace: Carcinogen Category

CHROMIUM TRIOXIDE, CHROMATE, DICHROMATE, AS CR (CAS 7440-47-3)      Carcinogenic to humans.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Chromium (CAS 7440-47-3)      3 Not classifiable as to carcinogenicity to humans.

<b>Toxic to reproduction</b>	Not classified.
<b>Specific target organ toxicity following single exposure</b>	Not classified.
<b>Specific target organ toxicity following repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	None known.

## SECTION 12 Ecological information

<b>Ecotoxicity</b>	Not available.
<b>Persistence and degradability</b>	No data is available on the degradability of this substance.
<b>Bioaccumulation</b>	No data available.
<b>Mobility in soil</b>	The product is immiscible with water and will spread on the water surface.
<b>Other hazardous effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13 Disposal considerations

<b>Residual waste</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
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**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Local disposal regulations** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

## SECTION 14 Transport information

### CNDG

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## SECTION 15 Regulatory information

### Law of the People's Republic of China on Prevention and Control of Occupational Diseases

#### Classification of occupational disease hazards

CHROMIUM AND ITS COMPOUNDS (CAS 7440-47-3)

### Regulations on the Control over Safety of Dangerous Chemicals

Not regulated.

### Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used

#### Directory of Highly Toxic Substances

Chromium (CAS 7440-47-3)

### Provision on the Environmental Administration of New Chemical Substances

#### China Inventory of Existing Chemical Substances

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Other regulations** This safety data sheet conforms to the following laws, regulations and standards:  
 Measures for the Safe Use of Chemicals in Workplaces  
 General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009 )  
 Regulations on Labor Protection in Workplaces Where Toxic Products Are Used  
 Packing Symbol of Dangerous Goods(GB190-2009)  
 Regulations on the Control over Safety of Dangerous Chemicals  
 Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)  
 Packing - Pictorial Marking for Handling of Goods (GB/T191-2009)

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Montreal Protocol

Not applicable.

#### Kyoto protocol

Not applicable.

#### Basel Convention

Not applicable.

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**SECTION 16 Other information****References**

EPA: AQUIRE database  
GB6944-2012: Classification and Code of Dangerous Goods.  
GB12268-2012: List of Dangerous Goods.  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents

**Further information**

Transportation Emergency  
Call Chemtrec at:  
International: 703.741.5970  
Spain: 900.868.538  
Switzerland: 0800.564.402

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**Other information**

Revised information in Section 16.