



MATERION

Product name: Chromium

CHEMICAL PRODUCT SAFETY DATA SHEET

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

Issue date: 05-14-2019

Version #: 01

SDS No: 061

SECTION 1 Chemical product and company identification

Chinese name of chemical	铬
English name of chemical	Chromium
Manufacturer/Supplier	Materion Advanced Materials Group
Address	42 Mt. Ebo Road South Brewster, NY 10509 United States
Contact person	Not available.
Telephone	1+845.279.0900
e-mail	Not available.
Emergency telephone number	Chemtrec 1+703.527.3887
Issue date	05-14-2019
SDS No	061

SECTION 2 Hazards identification

Emergency overview	Not available.	
Hazard categories		
Physical hazards	Not classified.	
Health hazards	Not classified.	
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

Label elements

Pictograms



Signal word	None.
Hazard statement	None.
Precautionary statement	
Prevention	None.
Response	None.
Storage	None.
Disposal	None.
Physical and chemical hazards	Not available.
Health hazards	Not available.
Environmental hazards	Not available.
Supplemental information	None.

SECTION 3 Composition/information on ingredients

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

SECTION 4 First aid measures

Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.
Most important symptoms and health effects	Not available.
Personal protection for first-aid responders	Not available.

SECTION 5 Fire-fighting measures

Extinguishing media	Not available.
Extinguishing media to avoid	None.
Specific hazards	None.
Special fire fighting procedures	None.
Protection of fire-fighters	None.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Not available.
For emergency responders	Not available.
Environmental precautions	Not available.
Clean-up methods and materials and containment measures	Not available.
Prevention of secondary hazards	Not available.

SECTION 7 Handling and storage

Handling	Not available.
Storage	Not available.

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

Biological limit values	No biological exposure limits noted for the ingredient(s).
Monitoring methods	Not available.
Engineering measures	Not available.
Personal protective equipment	
Respiratory protection	Not available.
Hand protection	Not available.
Eye protection	Not available.
Skin and body protection	Not available.

SECTION 9 Physical and chemical properties

Appearance

Physical state	Solid.
Form	Not available.
Color	Not available.
Odor	Not available.
pH	Not available.
Melting point/freezing point	3452 °F (1900 °C)
Boiling point, initial boiling point, and boiling range	4787.6 °F (2642 °C)
Flash point	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 0.0000001 kPa (77 °F (25 °C))
Vapor density	Not available.
Relative density	Not available.
Density	7.14 g/cm ³ estimated
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Other data	
Molecular formula	Cr
Molecular weight	52 g/mol
Specific gravity	7.14
Surface tension	1.52 N/m (3272 °F (1800 °C))

SECTION 10 Stability and reactivity

Stability	Not available.
Possibility of hazardous reactions	Not available.
Conditions to avoid	None.
Incompatible materials	None.
Hazardous decomposition products	None.

SECTION 11 Toxicological information

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

Carcinogenicity**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.

Toxic to reproduction Not available.
Specific target organ toxicity following single exposure Not available.
Specific target organ toxicity following repeated exposure Not available.
Aspiration hazard Not available.
Chronic effects Not available.

SECTION 12 Ecological information**Ecotoxicological data**

Product	Species	Test Results
Chromium		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 0.01 - 0.7 mg/l, 48 hours
Fish	LC50	Carp (Cyprinus carpio) 14.3 mg/l, 96 hours
Ecotoxicity		Not available.
Persistence and degradability		Not available.
Bioaccumulation		Not available.
Mobility in soil		Not available.
Other hazardous effects		Not available.

SECTION 13 Disposal considerations

Residual waste Not available.
Contaminated packaging Not available.
Local disposal regulations Not available.

SECTION 14 Transport information**CNDG**

UN number UN3077
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Chromium)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Special precautions for user Not available.

IATA

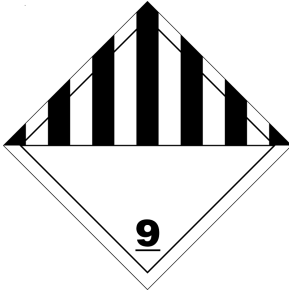
Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

CNDG

**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 (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).

International regulations**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

SECTION 16 Other information**References**

Not available.

Revision information

Product and Company Identification: Product Review
 Composition / Information on Ingredients: Ingredients
 Transport Information: Material Transportation Information