

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name STEEL-IT #1002 Polyurethane (spray/brush grade)
Revision date 02-01-2012
Version # 01
CAS # Mixture
Product code 1002
MSDS Number SDS-1002
Product use Paint / Industrial coating.
Manufacturer/Supplier Stainless Steel Coatings, Inc
835 Sterling Road
South Lancaster, MA, 01561
sds@steel-it.com
(978) 365-9828
Emergency CHEMTREC, 1-800-424-9300

2. Hazards Identification

Physical state Liquid.
Appearance Liquid.
Emergency overview WARNING! Flammable liquid and vapor. Causes skin, eye and respiratory tract irritation. May cause central nervous system effects. May cause damage to the kidneys.
OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.
Potential health effects
Routes of exposure Inhalation. Skin contact.
Eyes Causes eye irritation.
Skin Causes skin irritation. Prolonged or repeated contact may dry skin and cause irritation.
Inhalation Causes respiratory tract irritation. Overexposure to mists/vapors of this product may cause headache, dizziness, nausea, and respiratory tract irritation.
Ingestion May cause discomfort if swallowed.
Target organs Kidneys. Central nervous system
Chronic effects Exposure over a long period of time may cause central nervous system effects.
The product contains nickel which is listed by IARC and NTP as a possible human carcinogen and anticipated human carcinogen respectively.
Signs and symptoms Prolonged or repeated contact may dry skin and cause irritation. Sensitization. Skin irritation. Upper respiratory tract irritation. Drowsiness and dizziness.
Potential environmental effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Stoddard solvent	8052-41-3	20 - 30
4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene	98-56-6	20 - 25
Solvent naphtha (petroleum), medium aliph.	64742-88-7	5-7
Chromium	7440-47-3	2 - 5
Distillates, (petroleum), Hydrotreated Light	64742-47-8	2 - 5
Nickel	7440-02-0	2 - 3
Xylene	1330-20-7	1 - 2
Ethylbenzene	100-41-4	<0.1

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact

Check for and remove any contact lenses. Immediately flush with plenty of water for up to 15 minutes. Get medical attention immediately.

Skin contact

Wash area with soap and water. Get medical attention if irritation develops or persists.

Inhalation

If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Ingestion

Get medical attention if any discomfort occurs.

Notes to physician

Treat symptomatically.

5. Fire Fighting Measures

Flammable properties

Flammable liquid and vapor. Material will float and may ignite on surface of water. Containers may explode when heated.

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Foam. Dry chemical. Water fog.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Protective equipment and precautions for firefighters

Self-contained breathing apparatus.

Fire fighting equipment/instructions

Move container from fire area if it can be done without risk.

Hazardous combustion products

During fire, gases hazardous to health may be formed.

6. Accidental Release Measures

Personal precautions

Ensure adequate ventilation. Wear suitable protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.

Environmental precautions

Prevent entry into waterways, sewer, basements or confined areas.

Methods for containment

Eliminate all ignition sources. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Liquid Spills: Absorb up with sand or other non-combustible absorbent material.

Never return spills in original containers for re-use. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination.

7. Handling and Storage

Handling

Use only with adequate ventilation. Wash thoroughly after handling. Observe good industrial hygiene practices. Avoid inhalation of vapors and contact with skin and eyes.

Storage

Store locked up. Keep container tightly closed and in a well-ventilated place. Store in closed original container at room temperature. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components

Type

Value

Form

Chromium (7440-47-3)

TWA

0.5 mg/m³

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethylbenzene (100-41-4)	TWA	20 ppm	
Nickel (7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.
Quartz (14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Solvent naphtha (petroleum), medium aliph. (64742-88-7)	TWA	5 mg/m3	Inhalable fraction.
Stoddard solvent (8052-41-3)	TWA	100 ppm	
Xylene (1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Chromium (7440-47-3)	PEL	1 mg/m3	
Ethylbenzene (100-41-4)	PEL	435 mg/m3	
		100 ppm	
Nickel (7440-02-0)	PEL	1 mg/m3	
Solvent naphtha (petroleum), medium aliph. (64742-88-7)	PEL	5 mg/m3	Mist.
Stoddard solvent (8052-41-3)	PEL	2900 mg/m3	
		500 ppm	
Xylene (1330-20-7)	PEL	435 mg/m3	
		100 ppm	

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Quartz (14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Chromium (7440-47-3)	TWA	0.5 mg/m3	
Distillates, (petroleum), Hydrotreated Light (64742-47-8)	TWA	200 mg/m3	Vapor.
Ethylbenzene (100-41-4)	STEL	543 mg/m3	
		125 ppm	
	TWA	434 mg/m3	
		100 ppm	
Nickel (7440-02-0)	TWA	1.5 mg/m3	
Quartz (14808-60-7)	TWA	0.025 mg/m3	Respirable particles.
Solvent naphtha (petroleum), medium aliph. (64742-88-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Stoddard solvent (8052-41-3)	TWA	572 mg/m3	
		100 ppm	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Chromium (7440-47-3)	TWA	0.5 mg/m3	
Distillates, (petroleum), Hydrotreated Light (64742-47-8)	TWA	200 mg/m3	Non-aerosol.
Ethylbenzene (100-41-4)	STEL	125 ppm	
	TWA	100 ppm	
Nickel (7440-02-0)	TWA	0.05 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Quartz (14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.
Solvent naphtha (petroleum), medium aliph. (64742-88-7)	TWA	1 mg/m ³	Mist.
Stoddard solvent (8052-41-3)	STEL	580 mg/m ³	
Xylene (1330-20-7)	TWA	290 mg/m ³	
	STEL	150 ppm	
	TWA	100 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Chromium (7440-47-3)	TWA	0.5 mg/m ³	
Ethylbenzene (100-41-4)	STEL	125 ppm	
	TWA	100 ppm	
Nickel (7440-02-0)	TWA	1 mg/m ³	Inhalable
Quartz (14808-60-7)	TWA	0.1 mg/m ³	Respirable.
Solvent naphtha (petroleum), medium aliph. (64742-88-7)	STEL	10 mg/m ³	Mist.
Stoddard solvent (8052-41-3)	TWA	5 mg/m ³	Mist.
	TWA	100 ppm	
Xylene (1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Chromium (7440-47-3)	TWA	0.5 mg/m ³	
Ethylbenzene (100-41-4)	STEL	543 mg/m ³	
		125 ppm	
	TWA	434 mg/m ³	
		100 ppm	
Nickel (7440-02-0)	TWA	1 mg/m ³	
Quartz (14808-60-7)	TWA	0.1 mg/m ³	Respirable dust.
Solvent naphtha (petroleum), medium aliph. (64742-88-7)	STEL	10 mg/m ³	Mist.
Stoddard solvent (8052-41-3)	TWA	5 mg/m ³	Mist.
	TWA	525 mg/m ³	
Xylene (1330-20-7)		100 ppm	
	STEL	651 mg/m ³	
		150 ppm	
	TWA	434 mg/m ³	
		100 ppm	

Mexico. Occupational Exposure Limit Values

Components	Type	Value	Form
Chromium (7440-47-3)	TWA	0.5 mg/m ³	
Ethylbenzene (100-41-4)	STEL	545 mg/m ³	
		125 ppm	
	TWA	435 mg/m ³	
		100 ppm	
Nickel (7440-02-0)	TWA	1 mg/m ³	
Quartz (14808-60-7)	TWA	0.1 mg/m ³	
Solvent naphtha (petroleum), medium aliph. (64742-88-7)	STEL	10 mg/m ³	Mist.
Stoddard solvent (8052-41-3)	TWA	5 mg/m ³	Mist.
	STEL	1050 mg/m ³	
		200 ppm	
	TWA	523 mg/m ³	

Mexico. Occupational Exposure Limit Values

Components	Type	Value	Form
Xylene (1330-20-7)	STEL	100 ppm	
		655 mg/m3	
	TWA	150 ppm	
		435 mg/m3	
		100 ppm	

Engineering controls Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

Personal protective equipment

Eye / face protection Use approved safety goggles or face shield.

Skin protection Wear appropriate chemical resistant clothing to prevent any possibility of skin contact. Nitrile chemical resistant gloves are recommended. Suitable gloves can be recommended by the glove supplier.

Respiratory protection In case of inadequate ventilation, use respiratory protection. In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter for organic gas.

General hygiene considerations 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.

9. Physical & Chemical Properties

Appearance	Liquid.
Color	Silver.
Odor	Characteristic of solvents.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	278.6 - 397.4 °F (137 - 203 °C)
Flash point	98.6 °F (37 °C)
Evaporation rate	0.9 (butyl acetate = 1)
Flammability limits in air, upper, % by volume	10.5 %
Flammability limits in air, lower, % by volume	0.9 %
Vapor pressure	5.3 mmHg at 20 °C
Vapor density	6.2 (Air = 1)
Specific gravity	1.15
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	< 1 (Log Pow)
Auto-ignition temperature	932 °F (500 °C)
Decomposition temperature	Not available.
VOC	490 g/l
Viscosity	700 cP (Brookfield #4 spindle @100rpm)
Bulk density	Not Applicable.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, sparks, flames. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.

Hazardous decomposition products	Metal oxides.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Toxicological data

Components	Test Results
Xylene (1330-20-7)	Acute Oral LD50 Rat: 4300 mg/kg
Acute effects	Overexposure to mists/vapors of this product may cause headache, dizziness, nausea, and respiratory tract irritation. Causes skin, eye and respiratory tract irritation.
Sensitization	May cause an allergic skin reaction.
Carcinogenicity	Suspected of causing cancer.
ACGIH Carcinogens	
Chromium (CAS 7440-47-3)	A4 Not classifiable as a human carcinogen.
Ethylbenzene (CAS 100-41-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Nickel (CAS 7440-02-0)	A5 Not suspected as a human carcinogen.
Quartz (CAS 14808-60-7)	A2 Suspected human carcinogen.
Solvent naphtha (petroleum), medium aliph. (CAS 64742-88-7)	A4 Not classifiable as a human carcinogen.
Xylene (CAS 1330-20-7)	A4 Not classifiable as a human carcinogen.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Chromium (CAS 7440-47-3)	3 Not classifiable as to carcinogenicity to humans.
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Nickel (CAS 7440-02-0)	2B Possibly carcinogenic to humans.
Quartz (CAS 14808-60-7)	1 Carcinogenic to humans.
Solvent naphtha (petroleum), medium aliph. (CAS 64742-88-7)	3 Not classifiable as to carcinogenicity to humans.
Stoddard solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.
US NTP Report on Carcinogens: Anticipated carcinogen	
Nickel (CAS 7440-02-0)	Reasonably Anticipated to be a Human Carcinogen.
US NTP Report on Carcinogens: Known carcinogen	
Nickel (CAS 7440-02-0)	Known To Be Human Carcinogen.
Quartz (CAS 14808-60-7)	Known To Be Human Carcinogen.
Mutagenicity	There is no data to indicate that any component present at greater than 0.1% may present a risk.
Teratogenicity	There is no data to indicate that any component present at greater than 0.1% may present a risk.
Symptoms and target organs	Prolonged or repeated contact may dry skin and cause irritation. Sensitization. Skin irritation. Upper respiratory tract irritation. Headaches, dizziness and nausea.

12. Ecological Information

Ecotoxicological data

Components	Test Results
Xylene (1330-20-7)	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss): 8 mg/l 96 Hours
Ecotoxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient (n-octanol/water)	< 1 (Log Pow)
Mobility in environmental media	No data available.

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F
Disposal instructions	Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.
Waste from residues / unused products	Dispose of waste and residues in accordance with local authority requirements.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1263
Proper shipping name	Paint related material including paint thinning, drying, removing, or reducing compound (Stoddard solvent)
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Labels required	3
Additional information:	
Special provisions	B1, B52, IB3, T2, TP1, TP29
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

IATA

Basic shipping requirements:

UN number	1263
Proper shipping name	Paint (Stoddard solvent)
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Additional information:	
ERG code	3L

IMDG

Basic shipping requirements:

UN number	1263
Proper shipping name	PAINT (Stoddard solvent)
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS No.	F-E, S-E

TDG

Basic shipping requirements:

Proper shipping name	PAINT (Stoddard solvent)
Hazard class	3
UN number	UN1263
Packing group	III
Marine pollutant	D
Additional information:	
Special provisions	59, 83

15. Regulatory Information

US federal regulations

This product is hazardous according to OSHA 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

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

4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene (CAS 98-56-6) 1.0 % One-Time Export Notification only.

US CAA Section 112 Hazardous Air Pollutants (HAPs) List

CHROMIUM COMPOUNDS (CAS 7440-47-3)
ETHYLBENZENE (CAS 100-41-4)
M-XYLENES (CAS 1330-20-7)
NICKEL COMPOUNDS (CAS 7440-02-0)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Chromium (CAS 7440-47-3)	1.0 %
Ethylbenzene (CAS 100-41-4)	0.1 %
Nickel (CAS 7440-02-0)	0.1 %
Xylene (CAS 1330-20-7)	1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Chromium (CAS 7440-47-3)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Nickel (CAS 7440-02-0)	Listed.
Xylene (CAS 1330-20-7)	Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

Chromium: 5000
Nickel: 100
Ethylbenzene: 1000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
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Section 311/312 (40 CFR 370)	Yes
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Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)	Not controlled
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Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
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WHMIS status	Controlled
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WHMIS classification	B2 - Flammable/Combustible D2A - Other Toxic Effects-VERY TOXIC D2B - Other Toxic Effects-TOXIC
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WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

State regulations WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Chromium (CAS 7440-47-3)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Nickel (CAS 7440-02-0)	Listed.
Solvent naphtha (petroleum), medium aliph. (CAS 64742-88-7)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Ethylbenzene (CAS 100-41-4)	Listed.
Nickel (CAS 7440-02-0)	Listed.
Quartz (CAS 14808-60-7)	Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004 Carcinogenic.
Nickel (CAS 7440-02-0)	Listed: October 1, 1989 Carcinogenic.
Quartz (CAS 14808-60-7)	Listed: October 1, 1988 Carcinogenic.

US - Massachusetts RTK - Substance: Listed substance

Chromium (CAS 7440-47-3)	Listed.
Distillates, (petroleum), Hydrotreated Light (CAS 64742-47-8)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Nickel (CAS 7440-02-0)	Listed.
Quartz (CAS 14808-60-7)	Listed.
Solvent naphtha (petroleum), medium aliph. (CAS 64742-88-7)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Chromium (CAS 7440-47-3)	500 LBS
Distillates, (petroleum), Hydrotreated Light (CAS 64742-47-8)	10000 LBS
Ethylbenzene (CAS 100-41-4)	500 LBS
Nickel (CAS 7440-02-0)	500 LBS
Xylene (CAS 1330-20-7)	500 LBS

US - New Jersey RTK - Substances: Listed substance

4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene (CAS 98-56-6)	Listed.
Chromium (CAS 7440-47-3)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Nickel (CAS 7440-02-0)	Listed.
Quartz (CAS 14808-60-7)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.

US - Pennsylvania RTK - Hazardous Substances: All compounds of this substance are considered environmental hazards

Chromium (CAS 7440-47-3)	LISTED
Nickel (CAS 7440-02-0)	LISTED

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Chromium (CAS 7440-47-3)	Listed.
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Distillates, (petroleum), Hydrotreated Light (CAS 64742-47-8)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Nickel (CAS 7440-02-0)	Listed.
Quartz (CAS 14808-60-7)	Listed.
Solvent naphtha (petroleum), medium aliph. (CAS 64742-88-7)	Listed.
Stoddard solvent (CAS 8052-41-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Chromium (CAS 7440-47-3)	Special hazard.
Nickel (CAS 7440-02-0)	Special hazard.

16. Other Information

HMIS® ratings

Health: 2*
Flammability: 3
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 3
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

02-01-2012