



# SAFETY DATA SHEET

**CHEMALLOY CO. LLC**  
**P.O. BOX 350**  
**BRYN MAWR, PA 19010-0350**

**CHEMICAL NAME:** Chromium Nitride  
**COMMON/TRADE NAME:** Nitrogenized Chromium

## SECTION 1 - IDENTIFICATION

**Product Identifier** Chromium Nitride  
**Other Name(s)** Nitrogenized Chromium  
**Recommended use** Manufacturing & Welding  
**Restrictions for use** Commercial use only, not for human consumption  
**Manufacturer Name** Chemalloy Company LLC  
**Address** PO Box 350  
Bryn Mawr, PA 19010  
**Telephone** (610) 527-3700  
**Fax No.** (610) 527-3878  
**Emergency Phone** (800) 424-9300 (Chemtrec)  
**Contract No.** CCN 4453

## SECTION 2 - HAZARD(S) IDENTIFICATION

**Hazardous Classification** Skin Irritation (Category 2); Eye Irritation (Category 2B)  
**per 29CFR 1910.1200** Specific target organ toxicity - single exposure (Category 3 - Respiratory Organs)  
**(Rev. July 1, 2012)** 100% of ingredients consists of unknown acute toxicity  
**Other Hazards not classified** Nitrogenized Chromium powder is also considered a Combustible Dust.

**Signal Word** WARNING

**Hazard pictograms**



**Hazard Statements** Causes skin and eye irritation. May cause respiratory irritation.  
May form combustible dust concentrations in air.

**Precautionary Statements**

**Prevention** Wash thoroughly after handling.  
Wear protective gloves/clothing when handling material.  
Do not breathe dust, fumes, mist, vapor, or contact with skin/eyes when using this product.

**Response** If on skin: Wash with plenty of water. Follow by washing with soap and water. If skin irritation occurs: Get medical advice/attention. Remove contaminated clothing to wash before reuse.  
If in eyes: remove contacts and rinse cautiously with water for several minutes. Seek medical assistance if eye symptoms persist. If inhaled: Move person to fresh air and seek medical assistance if feeling unwell.  
In case of fire: Smother with dry sand or inert material suitable for Class D fires.

**Storage** Store in a well-ventilated place in properly labelled, tightly sealed appropriate packaging.  
Prohibit access to unauthorized use. Store in a dry place.

**Disposal** Dispose of contents/container in accordance with local, state and federal regulations.  
Avoid any release to the environment.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Formula	CAS No.	Concentration
Chromium	Cr	7440-47-3	> 88 % and < 90 %
Nitrogen	N	7727-37-9	> 8 % and < 12 %

**Common Names/Synonyms** Nitrogenized Chromium

## SECTION 4 - FIRST AID MEASURES

<b>In case of inhalation</b>	If breathed in and person has difficulty breathing or feels unwell, move person into fresh air. If symptoms persist, obtain immediate medical attention and report substance inhaled. If victim is not breathing, and if assistance is trained, administer CPR.
<b>In case of skin contact</b>	Wash with plenty of water. Follow by washing with soap and water. If skin irritation occurs: Seek medical advice/attention. Remove contaminated clothing to wash before reuse.
<b>In case of eye contact</b>	If wearing contacts: remove and rinse eyes cautiously with water for several minutes. Seek medical assistance if eye symptoms persist.
<b>In case of ingestion</b>	Obtain immediate medical attention and report substance ingested. Do not give an unconscious victim anything to eat or drink, or try to induce vomiting.
<b>Symptoms &amp; Effects -acute</b>	Irritation to the skin/eyes & respiratory organs.
<b>Symptoms &amp; Effects -chronic</b>	ACGIH lists Cr metal as an Upper Respiratory Tract and skin irritant
<b>Immediate Medical Care</b>	Treat symptomatically.

## SECTION 5 - FIREFIGHTING MEASURES

<b>Extinguishing media</b>	Smother with dry sand or inert material suitable for Class D fires. If appropriate, isolate fire and allow it to burn itself out.
<b>Special hazards arising from substance or mixture</b>	Do not use water and avoid generating powder dust. Dust clouds and fine material can burn and explode.
<b>Special protective equipment &amp; precautions for firefighters</b>	Firefighters should wear full protective clothing and NIOSH approved self-contained breathing apparatus.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment, and emergency procedures</b>	<b>For non-emergency personnel:</b> keep unprotected people away, allow only well trained personnel wearing suitable protective clothing to respond to the incident. <b>For emergency responders:</b> Avoid eye and skin contact; Do not inhale dust particles, and avoid the formation of dust.
<b>Methods and materials for containment and clean-up</b>	Spilled material is to be collected in a mechanical manner minimizing the formation of dust, and placed into a suitable, properly labelled container for disposal. Have sand pails available. Also, during disposal wear suitable personal protective equipment.
<b>Environmental precautions</b>	Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws.

## SECTION 7 - HANDLING AND STORAGE

<b>Precautions for safe handling</b>	Observe conventional hygiene precautions, and after work hours, wash hands thoroughly. Avoid the direct contact with the product. Do not eat or smoke in the workplace. Ensure adequate ventilation and avoid formation of dust. Use Personal Protective Equipment as detailed in Section 8. Emptied containers may contain residues of product, which may be hazardous.
<b>Conditions for Safe Storage, including any incompatibilities</b>	Keep in original, closed and labelled container. Place of storage should be properly ventilated, clean, cool and dry. Product should not be stored in the vicinity of acids, or moisture. Follow all instructions on warning labels.
<b>Precautions against fire and explosion</b>	Avoid flame, sparks and high heat.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Limits**

Hazardous Component	CAS NO.	OSHA PEL	ACGIH TLV
Chromium	7440-47-3	1.0 mg/M <sup>3</sup> TWA	0.5 mg/M <sup>3</sup> TWA
Nitrogen	7727-37-9	N.A.	N.A.

**Personal Protection Requirements**

**Respiratory:** NIOSH approved respirators should be used when mechanical controls are not feasible.

**Hand:** Protective gloves are recommended for handling this material.

**Eye:** ANSI approved eye/face protection is required when handling this material.

**Other/ Clothing:** Appropriate work place clothing should be worn when handling this material.

**Engineering Controls:** Local exhaust/ventilation should be used when feasible to control dust levels below acceptable occupational exposure limits.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE/APPEARANCE Gray-black powder	ODOR No odor	ODOR THRESHOLD No data available
pH No data available	MELTING PT Approx. 1649°C	INITIAL BOILING PT No data available
FLASH PT No data available	EVAPORATION RATE No data available	FLAMMABILITY (solid, gas) combustible dust (powder only)
UEL / LEL No data available	VAPOR PRESSURE No data available	VAPOR DENSITY No data available
SPECIFIC GRAVITY/RELATIVE DENSITY 7.0 (H <sub>2</sub> O = 1)	SOLUBILITY (water) Insoluble	PARTITION COEFFICIENT No data available
AUTO IGNITION TEMPERATURE No data available	DECOMPOSITION TEMPERATURE No data available	VISCOSITY Not Applicable

**SECTION 10 - STABILITY AND REACTIVITY**

**Reactivity** Will react with materials identified below

**Chemical Stability** Stable at normal temperature & general work conditions

**Possibility of Hazardous Reactions** Reacts with acids

**Conditions to Avoid** Avoid ignition sources, sparks, open flames, and generation of air-borne dusts.

**Incompatible Materials** Acids

**Hazardous Decomposition Products** None Known

**SECTION 11 - TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY None Known	LD <sub>50</sub> (inhalation-rat) No data available	LD <sub>50</sub> (oral-rat) No data available	ATE CALCULATIONS Not Applicable
SKIN CORROSION/IRRITATION Category 2	SERIOUS EYE DAMAGE/EYE IRRITATION Category 2B		SKIN SENSITIZATION None Known
GERM CELL MUTAGENICITY None Known	CARCINOGENICITY (IARC, NTP, OSHA, ACGIH) ACGIH does not classify Cr Metal as a Human Carcinogen		REPRODUCTIVE TOXICITY None Known
STOT-SINGLE EXPOSURE Category 3 - Respiratory	STOT-REPEATED EXPOSURE None Known		ASPIRATION HAZARD None Known

**Likely Routes of Exposure** Inhalation, External exposure: Skin/eye contact

## SECTION 11 -TOXICOLOGICAL INFORMATION (cont.)

Symptoms related to Physical, Irritation to the respiratory system, skin and eyes  
Chemical, Toxicological Characteristics

Delayed and Immediate effects from ACGIH lists Cr metal as an Upper Respiratory Tract and skin irritant  
short-term and long-term exposure

## SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY	LC <sub>50</sub> (fish)	EC <sub>50</sub> (crustaceans)	NOEC (algae)
None Known	No data available	No data available	No data available

Persistence and Degradability No data available

Bioaccumulative potential No data available

Mobility in Soil No data available

Other Adverse Effects No data available

## SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in Sections 7 and 8.

Methods of Disposal Dispose of spillage and waste (product/packaging) in accordance with all local/regional national/ international regulations. Waste containing chromium is considered hazardous under the RCRA criteria.

## SECTION 14 -TRANSPORT INFORMATION

Proper Shipping Name This material is not regulated by 49 CFR.

UN Number none

Hazard Class none

Packing Group none

## SECTION 15 - REGULATORY INFORMATION

### TSCA Information

This chemical appears on the Toxic Substances Control Act (TSCA) inventory.

### SARA Title III: Sec 302 Extremely Hazardous Substances, 40 CFR355

There are no extremely hazardous substances present in this material.

### SARA Title III: Sec 311 and 312, MSDS Requirements

This material is subject to the reporting requirements for this regulation. Threshold planning quantity: 10,000 lbs.

### SARA Title III: Sec 313, Toxic Chemicals Notification

This material contains 85% to 87% Chromium, a toxic chemical subject to the reporting requirements for this regulation.

## SECTION 16 -OTHER INFORMATION

Revision History 05/21/2015 - SDS formatted to 16-part GHS format, Supersedes 01/01/2012 MSDS revision

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