



MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 06-05-96

CHEMICAL IDENTITY

LABEL IDENTITY	NICKEL-CHROMIUM ALLOY		
CHEMICAL NAME/SYNONYMS	NICKEL BASED ALLOY		
FORMULA	NiCr		
CAS REGISTRY NUMBER	Ni: 7440-02-02; Cr: 7440-47-3		
HAZARDOUS INGREDIENTS:			
%: 80-90	OSHA(PEL): 1mg/m3	ACGIH(TLV):: 1.0mg/m3	
%: 10-20	OSHA(PEL): 1mg/m3	ACGIH(TLV): 0.5mg/m3	

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	Silver to gray, odorless
BOILING POINT	NA
DENSITY (gm/cc)	NA
VAPOR PRESSURE @ 20°	NA
% VOLATILE BY VOLUME (%)	NA
REACTION WITH WATER	NA
EVAPORATION RATE (H2O=1)	NA
SOLUBILITY IN WATER	Insoluble
MELTING POINT	1500 - 1550°C
SPECIFIC GRAVITY (H2O=1)	8.54 - 8.72°C

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NA
AUTOIGNITION TEMPERATURE (°C)	NA
FLAMMABILITY	% by volume
EXTINGUISHING MEDIA	Class D extinguisher, dry chemicals
SPECIAL FIRE FIGHTING PROCEDURES	Wear a self-contained breathing apparatus
UNUSUAL FIRE & EXPLOSION HAZARDS	Powder, fines or dust are flammable and may ignite spontaneously in air. Powder ignites & is spontaneously explosive in the atmosphere at CO2.



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HEALTH HAZARD INFORMATION

TOXICITY DATA **No Data**

HMIS RATING:

HEALTH: **na** FLAMMABILITY: **na** REACTIVITY: **na** PERSONAL PROTECTION: **na**

ROUTES OF ENTRY

INHALATION: **Yes**
SKIN: **Yes (broken)**
INGESTION: **Yes**

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **allergies and impaired pulmonary functions.**

EFFECTS OF OVEREXPOSURE (acute and chronic):

INHALATION: **chronic respiratory ailments.**

DERMAL/EYE: **dermatitis and conjunctivitis**

INGESTION: **poison**

CARCINOGENICITY: **experimental carcinogen, neoplastigen, tumorigen and teratogen.**

Symptoms of overexposure: cough, shortness of breath, dermatitis, chills, bronchitis, irritation and fever, and can cause pulmonary asthma.

CARCINOGENICITY: **Yes** NTP: **No** IARC MONOGRAPHS: **No** OSHA REGULATE: **No**

EMERGENCY FIRST AID PROCEDURES:

INGESTION: **Seek medical attention**

INHALATION: **Seek medical attention**

SKIN CONTACT: **Wash affected area with soap and water**

EYE CONTACT: **Flush eyes with copious amounts of water**

REACTIVITY DATA

STABILITY

Stable

CONDITIONS CONTRIBUTING TO UNSTABILITY

None

INCOMPATIBILITY (MATERIALS TO AVOID)

Reacts violently with F2, ammonia, ammonium nitrate, hydrazine, H2+ dioxane, performic acid, P, Se, S, (Ti+KClO3). Under certain conditions exposure to carbon monoxide may produce nickel carbonyl, a highly toxic gas.

HAZARDOUS DECOMPOSITION PRODUCTS

None

HAZARDOUS POLYMERIZATION

Will Not Occur

CONDITIONS TO AVOID

None



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SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Pick up powder or dust spills with methods such as vacuuming or wet mopping.

WASTE DISPOSAL METHOD:

Metal may recycled. If disposing of please consult federal, state and local regulations for proper disposal.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION

NIOSH approved respirators according to CFR 1910.134 in machining processes producing dust or fumes

LOCAL EXHAUST

Recommended

MECHANICAL (general)

NA

OTHER

None recommended

PROTECTIVE GLOVES

Recommended

EYE PROTECTION

Use safety glasses/goggles when working

with

processes that generate dust, powder, fumes. Wash hands thoroughly after handling metal alloys. Maintain a clean dust-free

OTHER PROTECTIVE EQUIPMENT

environment.

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE: **Avoid dusty conditions, store away from oxidizing agents, mineral acids, and sources of ignition or heat.**

TRANSPORTATION REQUIREMENTS

DOT CLASS:

Not Classified

UN NUMBER:

NC

IMCO CLASS:

NC

OTHER:

SPC, Corrosive

PRECAUTIONARY LABELING

NONE

OTHER PRECAUTIONS

NONE

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NA= NOT APPLICABLE

ND= NO DATA FOUND

NR=NOT RECORDED