

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product Identifier : Expanded Monel, Nickel Alloy

Product Code(s) : Series 901

Product Use : Coil, sheet or strip metal

Supplier's Name and Address : Nolato Jabar LLC
PO Box 1249
252 Brighton Road
Andover, NJ, USA
07821

Manufacturer's Name and Address : Refer to Supplier

Information Telephone # : (973) 786-5000

24 Hr. Emergency Tel # : (973) 786-5000

SECTION 2 : HAZARDS IDENTIFICATION

Emergency Overview
This product is classified as not hazardous in accordance with the Globally Harmonized System of Classification and Labelling (GHS).

POTENTIAL HEALTH EFFECTS :
Signs and symptoms of short-term (acute) exposure
No known adverse health effects, but unnecessary exposure to any chemical should be avoided.

Effects of long-term (chronic) exposure
No known adverse chronic health effects, but unnecessary exposure to any chemical should be avoided.

Classification of the product
No need for classification according to GHS for this product.
Product does not require a hazard warning label.

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.
Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.
Potential environmental effects : See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS #	Wt %
Monel 400	N/A	100

SECTION 4 : FIRST AID MEASURES

First Aid : Eyes
In case of injury to the eye, seek medical attention. If dust particles created by processing get into the eye, immediately flush eyes with large quantities of water for at least 15 minutes. Contact a physician.

First Aid : Skin
Seek medical help for serious cuts or lacerations or if irritation from contact with dusts persists

First Aid : Ingestion
Obtain medical attention immediately.

First Aid : Inhalation
For overexposure to airborne fumes and dusts created from processing, move to fresh air immediately and contact a physician.

Notes For Physician :

Treat Symptomatically

SECTION 5 : FIRE FIGHTING MEASURES

Suitable Extinguishing Media

For molten metal use dry powder or sand. Do not use water on molten metal. Use extinguishing media appropriate for surrounding materials.

Specific hazards arising from the chemical

May release hazardous vapors during a fire.

Special Protective Actions for Fire-Fighters

Wear full protective clothing and self-contained breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

The following recommendations are established general accepted practices of containment, not specific to this material.

Personal Precautions

For spills of dusts or small particles: Wear appropriate protective clothing. Avoid contact with skin and eyes.

Environmental Precautions

Prevent the material from entering drains or watercourses

Methods and materials for containment and cleaning up

For spills of dusts or small particles use vacuum or wet sweep methods. Pick up and transfer into suitable containers for recovery or disposal.

SECTION 7 : HANDLING AND STORAGE

Safe Handling Procedures

Wear appropriate protective clothing. When processing, use in well ventilated area and use local exhaust ventilation. Avoid inhaling dust and fumes.

Storage Requirements

Store away from sources of heat or ignition. Store away from acids. Storage area should be: cool - dry - well ventilated - out of direct sunlight - away from sources of ignition(heat, sparks, flames, pilot lights) - away from incompatible materials (see Section 10)

SECTION 8 : EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist. These limits are for metals that may be released during further processing.

Iron as Iron Oxide

ACGIH TLV: 5 mg/m³ TWA, Measured as respirable fraction of the aerosol
OSHA PEL: 10 mg/m³ TWA fume

Manganese, Fume, as Mn

ACGIH TLV: 0.2 mg/m³ TWA
OSHA PEL: 5 mg/m³ CEIL (C)

Chromium Metal

ACGIH TLV: 0.5 mg/m³ TWA
OSHA PEL: 1 mg/m³ TWA

Copper, Dusts and mists, as Cu

ACGIH TLV: 1 mg/m³ TWA
OSHA PEL: 1 mg/m³ TWA

Molybdenum and insoluble compounds, as Mo

ACGIH TLV: 10mg/m³ TWA, Measured as inhalable fraction of the aerosol
ACGIH TLV: 3 mg/m³ TWA, Measured as respirable fraction of the aerosol

Nickel, Insoluble compounds, as Ni

ACGIH TLV: 0.2 mg/m³ TWA, Measured as inhalable fraction of the aerosol (Inorganic only)

Tantalum, Metal

ACGIH TLV: 5 mg/m³ TWA
OSHA PEL: 5 mg/m³ TWA

Aluminum Metal (dust)

ACGIH TLV: 1 mg/m³ TWA
OSHA PEL: 15 mg/m³ TWA Total dust, 5 mg/m³ TWA Respirable Fraction

Cobalt and inorganic compounds, as Co

ACGIH TLV: 0.02 mg/m³ TWA
OSHA PEL: 0.1 mg/m³ TWA (for metal dust and fume as Co)

Silicon	OSHA PEL: 15 mg/m3 TWA Total dust 5 mg/m3 TWA Respirable Fraction
Tungsten	ACGIH TLV: 5 mg/m3 TWA 10 mg/m3 15 min STEL
Tin	ACGIH TLV: 2 mg/m3 TWA OSHA PEL: 2 mg/m3 TWA
Lead	ACGIH TLV: 0.5 mg/m3 TWA OSHA Action Level: 0.03 mg/m3 OSHA PEL: 0.05 mg/m3 TWA
Zinc Oxide	ACGIH: TLV 2 mg/m3 8h TWA, respirable fraction, 15 min STEL 10 mg/m3 OSHA: Z-1 PEL 5 mg/m3, zinc oxide fume OSHA: Z-1 PEL 5 mg/m3, respirable fraction OSHA: Z-1 PEL 15 mg/m3, total dust
Phosphorus, sulfur and carbon as Particulates Not Otherwise Classified (PNOC)	OSHA PEL: 15 mg/m3 TWA Total dust 5 mg/m3 TWA Respirable Fraction

Appropriate engineering controls

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust) especially during welding, grinding or cutting, and control of process conditions.

Individual protection measures

Respiratory Protection

The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Skin Protection

Protective gloves

Eye/Face Protection

Chemical goggles

Body Protection

Normal work wear.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Solid
Color	Gray
Odor	None
Odor Threshold	No data available
pH	Not applicable
Density	No data available
Boiling Range/Point (°C/F)	No data available
Melting Point (°C/F)	No data available
Flash Point (PMCC) (°C/F)	Not flammable
Vapor Pressure	Not applicable
Evaporation Rate (BuAc=1)	Not applicable
Solubility in Water	Insoluble
Vapor Density (Air = 1)	Not applicable
VOC (%)	Not applicable
Partition coefficient (n-octanol/water)	Not applicable
Viscosity	Not applicable
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Upper explosive limit	No data available
Lower explosive limit	No data available
Flammability (solid, gas)	No data available

SECTION 10: STABILITY AND REACTIVITY

Expanded Monel, Nickel Alloy

Series 901

Reactivity	Data is not available.
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Contact with incompatible materials.
Incompatible Materials	Strong acids
Hazardous Decomposition Products	Oxides of metal components

SECTION 11 : TOXICOLOGICAL INFORMATION

Carcinogenicity	Product
Not considered carcinogenic by NTP, IARC, and OSHA.	Dust/Fume
Welding fumes: IARC Group 2B carcinogen (possibly carcinogenic to humans)	Nickel: IARC Group 2B carcinogen (possibly carcinogenic to humans), NTP: Anticipated Carcinogen 2B carcinogen (possibly carcinogenic to humans)
Germ Cell Mutagenicity	No data available.
Reproductive Toxicity	Chronic exposure to lead and cobalt dust may cause reproductive disorders.
Aspiration Hazard	Not an aspiration hazard.

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity :	The product itself has not been tested.
Mobility :	The product itself has not been tested.
Persistence :	The product itself has not been tested.
Bioaccumulation Potential :	The product itself has not been tested.
Other Adverse Environmental Effects :	None known.

SECTION 13 : DISPOSAL CONSIDERATIONS

Disposal Methods	Dispose of in accordance with all applicable local and national regulations.
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SECTION 14 : TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
DOT CFR 172.101 Data	None	Not Regulated	Not Regulated	None	☒
Classification for AIR	None	Not Regulated	Not Regulated	None	
Transportation (IATA)	None	Not Regulated	Not Regulated	None	☒
Environmental Hazards	None	Not Regulated	Not Regulated	None	

SECTION 15 : REGULATORY INFORMATION

US Federal Information :	
United States TSCA Inventory	All components of this product are in compliance or are exempt from inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.
Canada DSL Inventory	This product contains ingredients that are listed on the Domestic Substance List (DSL) or are exempt from listing.
California Proposition 65	This product contains the following materials which the State of California has found to cause cancer, birth defects or other reproductive harm: Nickel – Cobalt – Lead
SARA Title III Sect. 311/312 Categorization	None

SARA Title III Sect. 313

This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: Chromium (14 - 23%)
– Nickel (>45%) – Cobalt (<2.5%) – Copper (<34%)

SECTION 16 : OTHER INFORMATION**HMIS Rating*** - **Chronic Hazard** 0 - **Minimal** 1 - **Slight** 2 - **Moderate** 3 - **Serious** 4 - **Severe**

Health : *1

Flammability : 1

Reactivity : 0

Legend :

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service
ECHA: European Chemicals Agency
IARC: International Agency for Research on Cancer
N/A: Denotes no applicable information found or available
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value

SDS Preparation Data (dd/mm/yyyy) : 07/01/17

OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RCRA: Resource Conservation and Recovery Act
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TPQ: Threshold Planning Quantity
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References :

1. ACGIH, Threshold Limit Values and Biological Exposure Indices
2. International Agency for Research on Cancer Monographs, searched
3. Canadian Centre for Occupational Health and Safety, CInfoWeb databases, 2009 (Chempendium, HSDB and RTECS)
4. Safety Data Sheets from manufacturer
5. US EPA Title III List of Lists
6. California Proposition 65 List

Prepared for :

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**DISCLAIMER OF LIABILITY**

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