

U-178, NICKEL BASE SUPERALLOY

MSDS Number

BVMTK

National Stock Number

9630-00N052707

Product Name

U-178, NICKEL BASE SUPERALLOY

Manufacturer

SPECIAL METALS CORP

Product Identification

Product ID:U-178, NICKEL BASE SUPERALLOY

MSDS Date:10/20/1985

FSC:9630

NIIN:00N052707

MSDS Number: BVMTK

Responsible Party

SPECIAL METALS CORP

MIDDLE SETTLEMENT RD

NEW HARTFORD , NY 13413

US

Emergency Phone: 315-798-2888

Info Phone: 315-798-2888

Preparer: R. I. THURSTON

Cage: 51144

Contractor

SPECIAL METALS CORP

NEW HARTFORD, NY 13413

US

315-798-2888

Cage: 51144

Ingredients

NICKEL (SARA III)

CAS: 7440-02-0

RTECS: QR5950000

Fraction By Weight: 53.75%

OSHA PEL1 MG/M3

ACGIH TLV: 1 MG/M3

CHROMIUM (SARA III)

CAS: 7440-47-3

RTECS: GB4200000

Fraction By Weight: 18%

OSHA PEL1 MG/M3

ACGIH TLV: 0.5 MG/M3
EPA Report Quantity: 1 LB
DOT Report Quantity: 1 LB

IRON OXIDE; (IRON)
CAS: 1309-37-1
RTECS: NO7400000
Fraction By Weight: 18.5%
OSHA PEL10 MG/M3 (FE)
ACGIH TLV: 5 MG/M3 FUME (FE)

TITANIUM
CAS: 7440-32-6
RTECS: XR1700000
Fraction By Weight: 0.95%
OSHA PELN/K
ACGIH TLV: 10 MG/M3 (MFR)

MOLYBDENUM
CAS: 7439-98-7
RTECS: QA4680000
Fraction By Weight: 3.0%
OSHA PELN/K
ACGIH TLV: 10 MG/M3 (MFR)

COLOMBIUM; (NIOBIUM)
Fraction By Weight: 5.25%
OSHA PELN/K
ACGIH TLV: 10 MG/M3 (MFR)

ALUMINUM (SARA III)
CAS: 7429-90-5
RTECS: BD0330000
Fraction By Weight: 0.50%
OSHA PEL15MG/M3 DUST; 5 FUME
ACGIH TLV: 10 MG/M3 DUST

CARBON BLACK; (CARBON)
CAS: 1333-86-4
RTECS: FF5800000
Fraction By Weight: 0.35%

OSHA PEL3.5 MG/M3

ACGIH TLV: 3.5 MG/M3

BORON

CAS: 7440-42-8

RTECS: ED7350000

Fraction By Weight: 0.003%

OSHA PELN/K

ACGIH TLV: N/K

Hazards

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO
Health Hazards Acute and Chronic:PROLONGED OR REPEATED CONTACT MAY CAUSE SKIN IRRITATION OR OTHER ALLERGIC REACTIONS TO SENSITIVE INDIVIDUALS. PROLONGED EXCESSIVE EXPOSURE TO DUST, MIST AND FUMES OF THIS ALLOY MAY CONTRIBUTE TO CHRON IC RESPIRATORY AILMENTS.
Explanation of Carcinogenicity:NICKEL: IARC MONOGRAPHS ON THE EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 49, PG 257, 1990:GROUP (SUPDAT)
Effects of Overexposure:SEE HEALTH HAZARDS.
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

First Aid

First Aid:INGEST: CALL MD IMMEDIATELY . INHAL: REMOVE TO FRESH AIR. SUPPORT BREATHING (GIVE OXYGEN/ARTIFICIAL RESPIRATION) . SKIN: FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD . EYES: FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES.

Fire Fighting

Extinguishing Media:USE DRY POWDER EXTINGUISHING AGENT.
Fire Fighting Procedures:USE NIOSH/MSHA APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT .
Unusual Fire/Explosion Hazard:METAL POWDER DISPERSED IN AIR MAY CAUSE FIRE & EXPLOSION HAZARD. GOOD HOUSEKEEPING MUST BE MAINTAINED. MOLTEN METAL CAN IGNITE COMBUSTIBLES.

Accidental Release

Spill Release Procedures:PICK UP POWDER OR DUST SPILLS BY METHODS SUCH AS VACUUMING OR WET MOPPING. PREVENT DUSTY CONDITIONS.
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

Handling

Handling and Storage Precautions:NONE SPECIFIED BY MANUFACTURER.
Other Precautions:NONE SPECIFIED BY MANUFACTURER.

Exposure Controls

Respiratory Protection:IF SOLID NICKEL FORMS ARE CONVERTED IN MFG PROCESSES TO DUST/FUMES & VENT IS NOT ADEQ TO MAINTAIN NICKEL CONC BELOW RECOM EXPOS LIMITS, THEN NIOSH/MSHA APPROVED RESP PROT SHOULD BE USED ACCORDING TO O SHA CFR 1910:134.
Ventilation:IF SOLID FORMS OF NICKEL ARE CONVERTED TO DUSTS/FUMES, WORKING ENVIRON SHOULD BE MAINTAINED BELOW RECOM EXPOS (SUPDAT)
Protective Gloves:LEATHER OR RUBBER GLOVES.
Eye Protection:ANSI APPVD CHEM WORK GOGG .
Other Protective Equipment:NONE SPECIFIED BY MANUFACTURER.
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.
Supplemental Safety and Health
MP: >2300F, >1260C. EXPLAN OF CARCIN: 2B. NTP 6TH ANNUAL RPT ON CARCINS, 1991:ANTIC TO BE CARCIN. HUMAN: LUNGS, NASAL CAVITIES.
CHROMIUM: IARC MONOGRAPHS, VOL 49, PG 49, 1990:GROUP 1. NTP 6TH

ANNUAL R PT ON CARCINS, 1991:KNOWN TO BE CARCIN.HUMAN/ANIMAL:LUNG
CANCER, SKIN ULCERS. VENT: LIMITS BY USE OF APPROP VENT.

Chemical Properties

Melt/Freeze Pt:M.P/F.P Text:SUPDAT

Spec Gravity:8.22 (H*2O=1)

Solubility in Water:INSOLUBLE

Appearance and Odor:METALLIC GRAY IN COLOR; NO ODOR.

Stability

Stability Indicator/Materials to Avoid:YES

CONTACT WITH MINERAL ACIDS WILL RELEASE HYDROGEN, A DANGEROUS GAS.

Stability Condition to Avoid:UNDER CERTAIN SPECIFIC CONDITIONS,

EXPOSURE TO CARBON MONOXIDE MAY PRODUCE NICKEL CARBONYL, A HIGHLY
TOXIC GAS.

Hazardous Decomposition Products:NONE.

Disposal

Waste Disposal Methods:DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE
OR FEDERAL REGULATIONS.

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