

SANDVIK INC WELDING AND WIRING DIVISION -- CR-NI COATED ELECTRODES, TYPE -15 & -16 --
3439-00-460-7660

===== Product Identification =====

Product ID:CR-NI COATED ELECTRODES, TYPE -15 & -16
MSDS Date:10/01/1985
FSC:3439
NIIN:00-460-7660
MSDS Number: BJJFB
=== Responsible Party ===
Company Name:SANDVIK INC WELDING AND WIRING DIVISION
Address:INTERSTATE 81 EXT 59
Box:1220
City:SCRANTON
State:PA
ZIP:
18501
Country:US
Info Phone Num:717-587-5191 OR 800-233-4181
Emergency Phone Num:717-587-5191
CAGE:61005
=== Contractor Identification ===
Company Name:ESAB GROUP INC
Address:801 WILSON AVENUE
Box:517
City:HANOVER
State:PA
ZIP:17331
Country:US
Phone:717-637-8911 OR 800-933-7070
CAGE:84021
Company Name:SANDVIK INC WELDING AND WIRING DIVISION
Address:INTERSTATE 81 EXT 59
Box:1220
City:SCRANTON
State:PA
ZIP:18501
Country:US
Phone:717-587-5191
CAGE:61005

===== Composition/Information on In

gredients =====

Ingred Name:CALCIUM CARBONATE (MARBLE) (LIMESTONE)

CAS:1317-65-3

RTECS #:EV9580000

Fraction by Wt: 1-10%

Other REC Limits:NONE SPECIFIED

OSHA PEL:15 MG/M3 TDUST

ACGIH TLV:10 MG/M3 TDUST; 9192

Ingred Name:CALCIUM FLUORIDE

CAS:7789-75-5

RTECS #:EW1760000

Fraction by Wt: 1-10%

Other REC Limits:NONE SPECIFIED

Ingred Name:IRON

CAS:7439-89-6

RTECS #:NO4565500

Fraction by Wt: TO 100%

Other REC Limits:NONE SPECIFIED

Ingred Name:CHROMIUM (SARA III)

CAS:7440-47-3

RTECS #:GB42

00000

Fraction by Wt: 5-30%

Other REC Limits:NONE SPECIFIED

OSHA PEL:1 MG/M3

ACGIH TLV:0.5 MG/M3; 9192

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:COPPER (SARA III)

CAS:7440-50-8

RTECS #:GL5325000

Fraction by Wt: 0-4%

Other REC Limits:NONE SPECIFIED

OSHA PEL:0.1MG/M3 FUME/1 DUST

ACGIH TLV:0.2MG/M3 FUME; 9192

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:MANGANESE (SARA III)

CAS:7439-96-5

RTECS #:OO9275000

Fraction by Wt: 1-10%

Other REC Limits:NONE SPECIFIED

OSHA PEL:(C) 5 MG/M3 DU

ST
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:MOLYBDENUM
CAS:7439-98-7
RTECS #:QA4680000
Fraction by Wt: 1-10%
Other REC Limits:NONE SPECIFIED
OSHA PEL:15 MG/M3 TDUST
ACGIH TLV:10 MG/M3; 9293

Ingred Name:NICKEL (SARA III)
CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: 1-35%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9192

Ingred Name:NIOBIUM (ALSO CALLED COLUMBIUM)
CAS:7440-03-1
Fraction by Wt: 1-10%
Other REC Limits:NONE SPECIFIED

Ingred Name:POTASSIUM, METAL
CAS:7440-09-7
RTECS #:TS6460000
Fraction by Wt: 1-10%
Other REC Limits:NONE SPECIFIED

Ingred Name:SILICON
CAS:7440-21-3
RTECS #:VW0400000
Fraction by Wt: 1-10%
Other REC Limits:NONE SPECIFIED
OSHA PEL:15 MG/M3 TDUST
ACGIH TLV:10 MG/M3 TDUST; 9293

Ingred Name:SODIUM, METAL
CAS:7440-23-5
RTECS #:VY0688000
Fraction by Wt: 1-10%
Other REC Limits:NONE SPECIFIED

Ingred Name:TITANIUM DIOXIDE
CAS:13463-67-7
RTECS #:XR2275000
Fraction by Wt: 1-20%
Other REC Limits:NONE SPECIFIED
OSHA PEL:15 MG/M3 TDUST
ACGIH

TLV:10 MG/M3 TDUST; 9293

Ingred Name:SODIUM FLUORALUMINATE

CAS:15096-52-3

RTECS #:WA9625000

Fraction by Wt: 1-10%

Other REC Limits:NONE SPECIFIED

OSHA PEL:2.5 MG F/M3

ACGIH TLV:2.5 MG F/M3

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===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:WELDING CONSUMABLES ARE NON-REACTIVE,
NON-FLAMMABLE, NON-EXPLOSIVE, AND ESSENTIALLY NON-H
AZARDOUS UNTIL

USED IN A WELDING OPERATION. WELDING HAZARDS INCLUDE INHALATION OF
FUMES, THERMAL BURNS, AND RADIATION BURNS AND ELECTRIC SHOCK.

Explanation of Carcinogenicity:NICKEL AND CHROMIUM ARE CONSIDERED
POSSIBLE CARCINOGENS UNDER OSHA. RESPIRATORY CANCER FROM WELDING IS
UNCONFIRMED.

Effects of Overexposure:EXPOSURE TO WELDING FUMES MAY RESULT IN
DIZZINESS, NAUSEA, FEVER AND/OR IRRITATION OF NOSE, THROAT AND
EYES. TOXIC GASES CAN BE FATAL.

Medical Cond Aggravated

by Exposure:PRE-EXISTING RESPIRATORY

DISFUNCTION MAY BE AGGRAVATED BY FUME INHALATION.

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===== First Aid Measures =====

First Aid:FUME INHALATION:REMOVE FROM EXPOSURE. GET MEDICAL ATTENTION.
THERMAL BURN:USE NORMAL FIRST AID. ULTRAVIOLET EXPOSURE:SKIN;TREAT
AS SUNBURN. EYE; GET MEDICAL ATTENTION. ELECTRIC SHOCK:TURN OFF
POWER. REMOVE AND RESTORE BREATHING IF NECESSARY. GET MEDICAL
ATTENTION.

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===== Fire Fighting Measures =====

Flash Point:NON-FLAMMABLE

Extinguishing Media:PRODUCT IS NON FLAMMABLE. EXTINGUISH FIRE WITH
MEDIA APPROPRIATE FOR SOURCE OF FIRE.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA &
FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER
SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.

Unusual Fire/Explosion Hazard:ARCS, SPARKS OR HOT METAL FROM A WELDING
OPERATION MAY IGNITE NEARBY COMBUSTABLE MATERIAL.

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Accidental Release Measures =====

Spill Release Procedures:CLEAN UP ANY GRINDING DUST OR WASTE RESIDUES AND PLACE IN SUITABLE DOT APPROVED CONTAINERS. AVOID INHALATION AND SKIN EXPOSURE.

Neutralizing Agent:NOT RELEVANT

===== Handling and Storage =====

Handling and Storage Precautions:NO SPECIAL HANDLING IS REQUIRED. STORE AS DIRECTED BY MFR.

Other Precautions:SEE ANSI STANDARD Z49.1-1983. READ "SAFETY IN WELDING AND CUTTING" F

FROM AMERICAN WELDING ASSOCIATION, 550 N.W. JEUNE RD., MIAMI,FL 33135.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE NIOSH/MSHA WELD FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN CUTTING, GRINDING OR WELDING IN A CONFINED SPACE OR WHERE LOCAL EXHAUST OR GENERAL VENTILATION DOES NOT KEEP EXPOSURE BELOW PEL/TLV.

Ventilation:USE LOCAL VENTILATION WHEN CUTTING, GRINDING OR WELDING TO KEEP THE DUST, FUMES & GASES FROM THE WORKERS BREATHING ZONE.

Protective Gloves:WELDERS LEATHER GLOVES

Eye Protection:OSHA APPR.GOGGLES/FACE SH'LD W/ANSI LENS

Other Protective Equipment:FLAME RETARDANT CLOTHING WHEN CUTTING, GRINDING OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT CUTTING OR WELDING.

Work Hygienic Practices:USE GOOD INDUSTRIAL HYGIENE. WASH THOROUGHLY BEFORE EATING OR SMOKING. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

WELDING AND HOT CUTTING FUMES & GASES CANNOT BE CLASSIFIED SIMPLY.

THEIR COMPOSITION AND QUANTITY ARE DEPENDENT ON THE METAL BEING WELDED, THE PROCEDURES, PROCESSES AND THE TYPE OF WIRE OR ELECTRODES USED. OTHER INFLUENCING FACTORS ARE THE PRESENCE OF CONTAMINANTS. CHLORINATED SOLVENTS MAY DECOMPOSE TO TOXIC GASES.

===== Physical/Chemical Properties =====

HCC:N1

Evaporation Rate & Reference:NEGLIGIBLE

Solubility in Water:NEGLIGIBLE

Appearance and Odor:SOLID WIRE WITH FLUX COATING

Percent Volatiles

by Volume:NIL

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

ACIDS

Stability Condition to Avoid:NONE

Hazardous Decomposition Products:WELDING AND CUTTING OPERATION MAY PRODUCE OXIDES OF THE METALS, CHROMATES, FLUORIDES, COMPLEX METALLICS, AND OZONE.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE I/A/W FEDERAL, STATE & LOCAL REGULATIONS. RECLAIM METALS IF APPROPRIATE.

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