

LINCOLN ELECTRIC CO -- STAINWELD 310-16;COVERED ELECTRODE AWS E310-1

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MSDS Safety Information
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FSC: 3439
NIIN: 00-878-2145
MSDS Date: 09/01/1992
MSDS Num: BWDYZ
Product ID: STAINWELD 310-16;COVERED ELECTRODE AWS E310-16
MFN: 01
Responsible Party
Cage: 36232
Name: LINCOLN ELECTRIC CO
Address: 22801 ST CLAIR AVE
C
ity: CLEVELAND OH 44117-2524
Info Phone Number: 216-481-8100
Emergency Phone Number: 216-481-8100
Preparer's Name: UNKNOWN
Review Ind: Y
Published: Y

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Contractor Summary
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Cage: 36232
Name: THE LINCOLN ELECTRIC CO
Address: 22801 ST CLAIR AVE
City: EUCLID OH 44117-1199
Phone: 216-481-8100

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Item Description Information
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Item Manager: S9G
Item Name: ELECTRODE,WELDING
Specification Number: MIL-E-22200/2D
Type/Grade/Class: TY MIL-310-16
Unit of Issue: CN
Quantitative Expression: 00000000010LB
UI Container Qty: 0
Type of Container: CAN

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Ingredients
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Cas: 13463-67-7
RTECS #: XR2275000
Name: TITANIUM DIOXIDE
% Wt: 10
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 15 MG/

M3 TDUST

ACGIH TLV: 10 MG/M3 TDUST; 9394

Cas: 1317-65-3

RTECS #: EV9580000

Name: CALCIUM CARBONATE (MARBLE) (LIMESTONE)

% Wt: 5

Other REC Limits: NONE RECOMMENDED

OSHA PEL: 15 MG/M3 TDUST

ACGIH TLV: 10 MG/M3 TDUST; 9394

Cas: 1344-09-8

Name: SODIUM SILICATE

% Wt: <5

Other REC Limits: NONE RECOMMENDED

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

Cas: 7439-96-5

RTECS #: OO9275000

Name: MANGANESE

(SARA III)

% Wt: <5

Other REC Limits: NONE RECOMMENDED

OSHA PEL: C 5 MG/M3 DUST

ACGIH TLV: 5 MG/M3 DUST 9394

Cas: 7440-47-3

RTECS #: GB4200000

Name: CHROMIUM (SARA III)

% Wt: <5

Other REC Limits: NONE RECOMMENDED

OSHA PEL: 1 MG/M3

ACGIH TLV: 0.5 MG/M3; 9394

EPA Rpt Qty: 1 LB

DOT Rpt Qty: 1 LB

Cas: 7789-75-5

RTECS #: EW1760000

Name: CALCIUM FLUORIDE (AS F)

% Wt: <5

Other REC Limits: NONE RECOMMENDED

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

Cas: 7440-02-0
RTECS #: QR5950000
Name: NICKEL (SARA III)
% Wt: <0.5
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 1 MG/M3
ACGIH TLV: 1 MG/M3; 9394

Cas: 65996-67-0
Name: IRON
% Wt: <0.5
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED
ACGIH TLV: NOT ESTABLISHED

Cas: 7440-21-3
RTECS #: VW0400000
Name: SILICON
% Wt: <0.5
Other REC Limits: NONE RECOMMENDED
OSHA
PEL: 15 MG/M3 TDUST
ACGIH TLV: 10 MG/M3 TDUST; 9394

Name: CORE WIRE, 65% ; FOR COMPOSITION SEE INGREDIENTS 11-13
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED
ACGIH TLV: NOT ESTABLISHED

Cas: 7440-47-3
RTECS #: GB4200000
Name: CHROMIUM (SARA III)
% Wt: 26
Other REC Limits: NONE RECOMMENDED
OSHA PEL: 1 MG/M3
ACGIH TLV: 0.5 MG/M3; 9394
EPA Rpt Qty: 1 LB
DOT Rpt Qty: 1 LB

Cas: 7440-02-0
RTECS

#: QR5950000

Name: NICKEL (SARA III)

% Wt: 21

Other REC Limits: NONE RECOMMENDED

OSHA PEL: 1 MG/M3

ACGIH TLV: 1 MG/M3; 9394

Cas: 7439-89-6

RTECS #: NO4565500

Name: IRON

% Wt: BALANCE

Other REC Limits: NONE RECOMMENDED

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

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Health Hazards Data
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LD50 LC50 Mixture: UNCLASSIFIED WELDING FUMES=5MG/M3 PEL

Route Of

Entry Inds - Inhalation: YES

Skin: YES

Ingestion: NO

Carcinogenicity Inds - NTP: YES

IARC: YES

OSHA: NO

Effects of Exposure: SHORT TERM EXPOSURE TO WELDING FUMES, GASES OR DUST MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE NOTED. A CUTaneous EXPOSURE FROM SOME TOXIC GASES MAY CAUSE PULMONARY EDEMA, ASPHYXIATION AND EXCESSIVE EXPOSURE CAN BE FATAL.

Explanation Of Carcinogenicity: NICKEL AND CHROMIUM ARE CONSIDERED POSSIBLE

CARCINOGENS UNDER OSHA. RESPIRATORY CANCER FROM WELDING IS UNCONFIRMED.

Signs And Symptoms Of Overexposure: EXPOSURE TO WELDING FUMES MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE NOTED. WATERY EYES, HEADACHE, BREATHING DIFFICULTY, FREQUENT COUGHING AND/OR CHEST PAINS MAY OCCUR FROM ACUTE EXPOSURE. TOXIC GASES CAN BE FATAL.

Medical Cond Aggravated By Exposure: SOME WORKERS MAY BE AFFECTED BY A

PRE-EXISTING CONDITION OR OTHER OCCUPATIONAL ILLNESS BECAUSE OF THE WIDE

VARIATION IN INDIVIDUAL SUSCEPTIBILITIES.

First Aid: IN CASE OF ELECTRICAL SHOCK, TURN OFF POWER PRIOR TO REMOVAL FROM EXPOSURE AREA AND ADMINISTRATION OF FIRST AID. REMOVE FROM EXPOSURE AREA AND CALL FOR MEDICAL AID. ADMINISTER OXYGEN IF BREATHING IS DIFFICULT. IF NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF NO DETECTABLE PULSE, BEGIN EXTERNAL HEART MASSAGE. EMPLOY FIRST AID TECHNIQUES

QUES RECOMMENDED BY THE
AMERICAN RED CROSS.

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Handling and Disposal
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Spill Release Procedures: CLEAN UP ANY GRINDING DUST OR WASTE RESIDUES AND PLACE IN SUITABLE DOT APPROVED CONTAINERS AND DISPOSE OF IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. AVOID INHALATION AND SKIN EXPOSURE.

Waste Disposal Methods: DISPOSE I/A/W FEDERAL, STATE & LOCAL REGULATIONS
Handling

Working And Storage Precautions: WEAR GLOVES AND FLAME RETARDANT CLOTHING WHEN CUTTING, GRINDING OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT CUTTING OR WELDING.

Other Precautions: PROVIDE PROTECTIVE SCREENS TO SHIELD OTHERS. WHEN ELECTRODES AND FLUXES ARE CONSUMED, THE FUME AND GAS DECOMPOSITION PRODUCTS GENERATED ARE DIFFERENT IN FORM FROM THE INGREDIENTS LISTED. NEW COMPOUNDS NOT IN THE ELECTRODES MAY FORM.

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Fire and Explosion Hazard Information
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Flash Point Text: NONE

Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.

Fire Fighting Procedures: WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard: COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.

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Control Measures
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Respiratory Protection: USE 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 RECOMMENDED LIMITS. USE ONLY NIOSH APPROVED RESPIRATORS.

Ventilation: USE ENOUGH 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 APPROVED GOGGLES/FACE SHIELD W/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: WASH THOROUGHLY BEFORE EATING OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health: WELDING AND HOT CUTTING FUMES & GASES CANNOT BE CLASSIFIED SIMPLY. THEIR COMPOSITION AND QUANT

ITY 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.

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Physical/Chemical Properties

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HCC: N1
Decomp Text: UNKNOWN
Appearance and Odor: WELDING ROD;14" X 0.125"OD
Percent Volatiles by Volume: NIL
Corrosion Rate: UNK
NOWN

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Reactivity Data

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Stability Indicator: YES
Stability Condition To Avoid: HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF
IGNITION
Materials To Avoid: STRONG OXIDIZING AGENTS
Hazardous Decomposition Products: WELDING AND CUTTING OPERATION MAY INCLUDE
OXIDES OF THE METALS, CHROMATES, FLUORIDES, COMPLEX METALLICS, AND OZONE.
Hazardous Polymerization Indicator: NO

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Toxicological Information

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Ecological Information

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MSDS Transport Information

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Regulatory Information

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Other Information

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Transportation Information

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Responsible Party Cage: 36232
Trans ID NO: 89687
Product ID: STAINWELD 310-16;COVERED ELECTRODE AWS E310-16
MSDS Prepared Date: 09/01/1992
Review Date: 01/19/1995
MFN: 1
Net Unit Weight: 10 LBS
AF MM

AC Code: NR
Multiple KIT Number: 0
Review IND: Y
Unit Of Issue: CN
Container QTY: 0
Type Of Container: CAN
Additional Data: NICKEL AND CHROMIUM ARE SUBJECT TO EPCRA REPORTING;RQ FOR CHROMIUM IS 5000 LBS, RQ FOR NICKEL IS 100 LBS.

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Detail DOT Information
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DOT PSN Code: ZZZ
DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
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Detail IMO Information
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IMO PSN Code: ZZZ
IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION
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Detail IATA Information
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IATA PSN Code: ZZZ
IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
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Detail AFI Information
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AFI PSN Code: ZZZ
AFI Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
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=====
HAZCOM Label
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Product ID: STAINWELD 310-16;COVERED ELECTRODE AWS E310-16
Cage: 36232
Company Name: THE LINCOLN ELECTRIC CO
Street: 22801 ST CLAIR AVE
City: EUCLID OH
Zipcode: 44117-1199
Health Emergency Phone: 216-481-8100
Label Required IND: Y
Date O

f Label Review: 01/19/1995
Status Code: C
MFG Label NO: UNKNOWN
Label Date: 01/19/1995
Origination Code: F
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: CAUTION
Respiratory Protection IND: YES
Health Hazard: Slight
Contact Hazard: Slight
Fire Hazard: Slight
Reactivity Hazard: None

Hazard And Precautions: SHORT TERM EXPOSURE TO WELDING FUMES MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS,NAUSEA,FEVER,DRYNESS,IRRITATION OF NOSE,THROAT AND EYES,SKIN SENSITIVITY.ACUTE EXPOSURE FROM SOME TOXIC GASES MAY CAUSE PULMONARY EDEMA,ASPHYXIATION.EXCESSIVE EXPOSURE CAN BE FATAL.FIRST AID: IN CASE OF ELECTRICAL SHOCK, TURN OFF POWER PRIOR TO REMOVAL FROM EXPOSURE AREA AND ADMINISTRATION OF FIRST AID. REMOVE FROM EXPOSURE AREA AND CALL FOR MEDICAL AID. ADMINISTER OXYGEN IF BREATHING IS DIFFICULT. IF NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF NO DETECTABLE PULSE, BEGIN EXTERNAL HEART MASSAGE. EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED CROSS.

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