Material Safety Data Sheet

Revision Date *25-Sep-2012*

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product code CW1871
Product name CRONAWELD EAGLE 3330
Recommended Use Welding Alloy

Supplier Cronatron, A Lawson Brand
Lawson Products, Inc.
8770 W.Bryn Mawr Ave.- Suite 900
Chicago, IL 60631
1-866-529-7664

Emergency telephone number (888) 426-4851

2. HAZARDS IDENTIFICATION

Emergency Overview

Hazardous fumes are generated by welding, soldering or brazing. Exposure to welding related processes, materials, fumes or gases might be linked to certain neurological and physical disorders and cancer. Protect yourself and others at all times. A NIOSH approved, proper fitting and well-maintained respirator should be worn at all times while using this product. Keep your head out of the fumes and gases. Use adequate ventilation and/or exhaust to keep fumes and gases from your breathing zone and the general area. Keep others without proper respiratory protection away from the fumes and gases and your work zone while using this product..

Aggravated Medical Conditions
Pre-existing respiratory conditions may be aggravated by exposure to welding fumes. Pre-existing eye conditions may be aggravated by exposure to this product.

Principal Routes of Exposure
Inhalation.

General Welding Statement
Fumes and gases can be dangerous to your health. Arc Rays can injure eyes and burn skin. Electric shock can kill.

Potential health effects

Eyes Irritation. Risk of serious damage to eyes.

Skin Skin burns. Sensitization.

Inhalation Short term (acute) overexposure to welding fumes may result in the following effects. Dizziness. Nausea. Dry throat. Irritation of the nose or throat. Respiratory irritation. Long term exposure to welding fumes may result in the following effects. Iron deposits in the lungs may cause siderosis. Central nervous system effects. It is believed by some investigators to affect pulmonary function .

Ingestion No adverse affects expected

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Iron	7439-89-6	15-40
Nickel	7440-02-0	10-30
Chromium	7440-47-3	10-30
Titanium Dioxide	13463-67-7	7-13
Sodium aluminum fluoride	15096-52-3	1-10
Calcium Carbonate	471-34-1	3-7
Manganese	7439-96-5	3-7
Molybdenum	7439-98-7	3-7
Silicon	7440-21-3	1-10
Sodium	7440-23-5	3-7
Calcium Fluoride	7789-75-5	3-7
Copper	7440-50-8	1-5
Sodium fluoride	7681-49-4	0.5-1.5
Potassium	7440-09-7	0.5-1.5
Quartz (Crystalline Silica)	14808-60-7	0.1-1.0
Niobium	7440-03-1	0.5-1.5

4. FIRST AID MEASURES

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Seek medical attention if irritation persists.

Skin contact No specific treatment is necessary since this material is not likely to be hazardous by skin contact. If skin irritation persists, call a physician.

Ingestion No specific treatment is necessary since this material is not likely to be hazardous by ingestion

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Administer artificial respiration if not breathing. Immediate medical attention is required.

5. FIRE FIGHTING MEASURES

Flash point °C No data available
Flash point °F No data available
Method No information available

Autoignition temperature °C No data available
Autoignition temperature °F No data available

Flammability Limits (% in Air)
Upper No data available
Lower No data available

Suitable extinguishing media
Use extinguishing media appropriate to surrounding fire

Special protective equipment for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Fire and Explosion Hazards
Welding arcs and sparks can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention during welding.

Sensitivity to shock
No information available.

Sensitivity to static discharge
No information available.

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up
Pick up and transfer to properly labelled containers.

7. HANDLING AND STORAGE

Handling
Avoid breathing fumes. Ensure adequate ventilation.

Storage
Keep in a dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Calcium Carbonate	-	-	-	-
Calcium Fluoride	-	-	-	-
Chromium	1 mg/m^3	-	0.5 mg/m^3	-
Copper	0.1 mg/m^3	-	0.2 mg/m^3 1 mg/m^3	-
Manganese	-	5 mg/m^3	0.2 mg/m^3	-
Molybdenum	-	-	10 mg/m^3 3 mg/m^3	-
Nickel	1 mg/m^3	-	0.2 mg/m^3 inhalable fraction	-
Niobium	-	-	-	-
Sodium	-	-	-	-
Potassium	-	-	-	-
Silicon	15 mg/m^3	-	-	-
Quartz (Crystalline Silica)	-	-	0.025 mg/m^3	-
Sodium aluminum fluoride	-	-	-	-
Sodium fluoride	-	-	-	-
Titanium Dioxide	15 mg/m^3	-	10 mg/m^3	-
Iron	-	-	5.0 mg/m^3 as iron oxide respirable fraction	-

Ventilation and Environmental Controls
Use enough ventilation, local exhaust at the work area, general, or both, to keep below the TLV's in the worker's breathing zone and the general area.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.

Respiratory protection
Use respirable fume respirator (P100) or supplied air when welding in confined spaces, or where local exhaust does not keep the exposure below TLV. Train welder to keep head out of fumes. Seek professional advise prior to respirator selection and use.

Hand Protection
Welder's gloves.

Eye protection
Wear helmet or face shield with filter lens. As a rule of thumb, start with a shade which is too dark to see the work area. Then go to the next lighter shade which gives sufficient view of the work area . Provide protective screens and flash goggles,if necessary, to shield others.

Skin and body protection
Sufficient to provide protection from radiation,heat, sparks and electrical shock.May include arm and shoulder protectors,aprons and dark substantial clothing. See ANSI Z49.1.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid
Color	No information available
Odor	No information available
Odor Threshold	No information available
pH	No data available
Specific Gravity	No data available
Vapor pressure	No data available
Vapor density	No data available
Evaporation Rate	No data available
Water solubility	No data available
Partition Coefficient (n-octanol/water)	No data available
Boiling point/range °C	No data available
Boiling point/range °F	No data available
Melting point/range °C	No data available
Melting point/range °F	No data available
Flash point °C	No data available
Flash point °F	No data available

10. STABILITY AND REACTIVITY

Stability
Stable under recommended storage conditions.

Conditions to avoid
None known.

Incompatability
No information available

Hazardous Decomposition Products
When the electrode is consumed, the fume and gas decomposition products are different in percent and form from the ingredients listed in Section 3. New compounds not in the electrodes may form during use. The concentration of a given fume or gas component may decrease or increase by many times the original concentration in the electrode. Welding fumes cannot be classified simply. Their composition and quantity are dependent upon the metal being welded, the process, procedures and electrodes being used. Coatings on the metal being welded (such as paint, plating, or galvanizing), number of welders and volume of work area . Number of welds. Volume of the work area. The amount and type of ventilation, the position of the welder's head with respect to the fume plume . Contaminants in the atmosphere such as chlorinated hydrocarbon vapors from cleaning and degreasing operations . Decomposition products include those originating from the volatilization, reaction or oxidation of the wire or rod plus those from the base metal and coating. Reasonably expected decomposition products from normal use of these products include the oxides of the material listed in the ingredients section, as well as carbon monoxide, carbon dioxide, ozone and nitrogen oxides. May include particles containing iron, manganese, silicone, chromium, nickel or other amorphous slags . One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet, if worn, or in the worker's breathing zone. See ANSI/AWS F1.1.

Polymerization
Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Component Information

Chemical Name	LD50 (oral,rat)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat)
Calcium Carbonate 471-34-1	6450 mg/kg	-	-
Calcium Fluoride 7789-75-5	4250 mg/kg	-	-
Chromium 7440-47-3	-	-	-
Copper 7440-50-8	-	-	-
Manganese 7439-96-5	9 g/kg	-	-
Molybdenum 7439-98-7	-	-	-
Nickel 7440-02-0	9000 mg/kg	-	-
Niobium 7440-03-1	-	-	-
Sodium 7440-23-5	-	-	-
Potassium 7440-09-7	-	-	-
Silicon 7440-21-3	3160 mg/kg	-	-
Quartz (Crystalline Silica) 14808-60-7	500 mg/kg	-	-
Sodium aluminum fluoride 15096-52-3	5 g/kg	-	-
Sodium fluoride 7681-49-4	52 mg/kg	175 mg/kg	-
Titanium Dioxide 13463-67-7	10000 mg/kg	-	-
Iron 7439-89-6	984 mg/kg	-	-

Synergistic Products None known

Potential health effects

Sensitization None known

Chronic toxicity None known

Mutagenic effects None known

Teratogenic effects None known

Reproductive toxicity None known

Target Organ Effects See Section 2

Carcinogenic effects Welding fumes must be considered as possible carcinogens under OSHA 29 CFR 1910.1200. Nickel and its compounds are required to be considered carcinogenic by OSHA. Chromium VI compounds are required by OSHA to be carcinogenic. Long term exposure to chromium and chromium III oxide dust can cause scaling redness itchiness and a burning sensation of the skin. Long term overexposure to nickel compounds may cause lung fibrosis or pneumoconiosis. Studies of nickel refinery workers indicated higher incidence of lung and nasal cancers. Chromium, cobalt, nickel metals and compounds are listed in the NTP annual report on Carcinogens and found to be potential carcinogens in the IARC Monographs and listed by OSHA/ ACGIH as potential carcinogens.

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Calcium Carbonate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Calcium Fluoride	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Chromium	A4	Not Listed	Not Listed	Not Listed	Not Listed
Copper	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Manganese	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Molybdenum	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Nickel	A5	Group 2B	Not Listed	Reasonably Anticipated To Be A Human Carcinogen	Listed
Niobium	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Sodium	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Potassium	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Silicon	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Quartz (Crystalline Silica)	A2	Group 1	Known Human Carcinogen	Not Listed	Listed
Sodium aluminum fluoride	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Sodium fluoride	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Titanium Dioxide	A4	Group 2B	Not Listed	Not Listed	Listed
Iron	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Nickel

Water Flea Data

Daphnia magna EC50=1 mg/L (48 h)

Daphnia magna EC50>100 mg/L (48 h)

Copper

Water Flea Data

Daphnia magna EC50=0.03 mg/L (48 h)

Sodium fluoride

Water Flea Data

Daphnia magna EC50=338 mg/L (48 h)

Daphnia magna EC50=98 mg/L (48 h)

13. DISPOSAL CONSIDERATIONS

Disposal Information

Discard container or liner in accordance with federal, state, and local regulations.

Waste from residues / unused products

Prevent waste from contaminating surrounding environment.

14. TRANSPORTATION INFORMATION

DOT

Not Regulated.

TDG

Not Regulated

15. REGULATORY INFORMATION

Chemical Name	US EPA SARA 313 Emission Reporting
Chromium	Listed
Copper	Listed
Manganese	Listed
Nickel	Listed

State Regulations

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Calcium Carbonate	Not Listed	Not Listed	Not Listed
Calcium Fluoride	Not Listed	Not Listed	Not Listed
Chromium	Not Listed	Listed	Not Listed
Copper	Not Listed	Listed	Not Listed
Manganese	Not Listed	Listed	Not Listed
Molybdenum	Not Listed	Listed	Not Listed
Nickel	Listed	Listed	Carcinogen
Niobium	Not Listed	Not Listed	Not Listed
Sodium	Listed	Listed	Not Listed
Potassium	Listed	Listed	Not Listed
Silicon	Not Listed	Listed	Not Listed
Quartz (Crystalline Silica)	Not Listed	Listed	Carcinogen
Sodium aluminum fluoride	Listed Listed	Not Listed	Not Listed
Sodium fluoride	Listed	Listed	Not Listed
Titanium Dioxide	Not Listed	Listed	Carcinogen
Iron	Not Listed	Not Listed	Not Listed

International Inventories

Chemical Name	EINECS	DSL	NDSL	TSCA
Calcium Carbonate	X	X	-	X
Calcium Fluoride	X	X	-	X
Chromium	X	X	-	X
Copper	X	X	-	X
Manganese	X	X	-	X
Molybdenum	X	X	-	X
Nickel	X	X	-	X
Niobium	X	X	-	X
Sodium	X	X	-	X
Potassium	X	X	-	X
Silicon	X	X	-	X
Quartz (Crystalline Silica)	X	X	-	X
Sodium aluminum fluoride	X	X	-	X
Sodium fluoride	X	X	-	X
Titanium Dioxide	X	X	-	X
Iron	X	X	-	X

CPR
This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations

16. OTHER INFORMATION

Health - 1
Flammability - 0
Reactivity - 0

Health - 1
Flammability - 0
Physical Hazard - 0

Prepared By V. Shargorodsky, Regulatory Affairs Engineer

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.