Material Safety Data Sheet

Revision Date *19-May-2015*

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product code P12565
Product name CERT 707 STL ARC ACDC 3/32`
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.

Principal Routes of Exposure
Inhalation of welding fumes. Skin contact. Eyes.

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 Eye contact may cause mechanical irritation. Risk of serious damage to eyes.

Skin Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

Inhalation Short term overexposure to welding fumes may result in dizziness, nausea, or dryness or irritation of nose, throat, or eyes. Long term exposure may lead to iron deposits in the lungs and is believed by some investigators to affect pulmonary function. Long term overexposure to nickel compounds may cause lung fibrosis, edema or pneumoconiosis. Inhalation of fume with chromium (VI) compounds can cause irritation of the respiratory tract, lung damage and asthma- like symptoms. Prolonged over exposure to molybdenum may cause loss of appetite, weight loss, loss of muscle coordination, difficulty breathing and anemia. Fluoride compounds produced may cause eye and skin burns, pulmonary edema bronchitis.

Ingestion Not likely to occur.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Manganese	7439-96-5	2-30
Chromium	7440-47-3	5-30
Nickel	7440-02-0	2-20
Calcium Fluoride	7789-75-5	5-15
Molybdenum	7439-98-7	0-10
Iron	7439-89-6	0-5

4. FIRST AID MEASURES

Eye contact Seek medical attention if irritation persists.

Skin contact Seek medical attention immediately.

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

Inhalation Move to fresh air. Contact physician if breathing difficulty develops.

5. FIRE FIGHTING MEASURES

Flash point °C Not Applicable
Flash point °F Not Applicable
Method Not Applicable

Autoignition temperature °C Not Applicable

Autoignition temperature °F Not Applicable

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.

Sensitivity to shock
No information available.

Sensitivity to static discharge
No information available.

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up
Collect and contain for disposal.

7. HANDLING AND STORAGE

Handling
Use normal safe handling procedures. Use only in area provided with appropriate exhaust ventilation. Avoid breathing fumes. Avoid contact with skin and eyes.

Storage
Keep in a dry, cool and well-ventilated place. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Manganese	-	5 mg/m³	0.02 mg/m³ 0.1 mg/m³	-
Chromium	1 mg/m³	-	0.5 mg/m³	-
Calcium Fluoride	-	-	-	-
Nickel	1 mg/m³	-	0.2 mg/m³ inhalable fraction	-
Molybdenum	-	-	10 mg/m³ 3 mg/m³	-
Iron	-	-	5.0 mg/m³ as iron oxide respirable fraction	-

Ventilation and Environmental Controls
Provide adequate ventilation to keep exposure limits below applicable limits. Local: required. Mechanical: required.

Hygiene measures
Wash hands after handling the product.

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.

Hand Protection
Welder's gloves. Leather 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.

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 Blue
Odor None
Odor Threshold Not Applicable
pH Not Applicable
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) Not Applicable
Boiling point/range °C Not Applicable

Boiling point/range °F	Not Applicable
Melting point/range °C	No data available
Melting point/range °F	No data available
Flash point °C	Not Applicable
Flash point °F	Not Applicable

10. STABILITY AND REACTIVITY

Stability
Stable.

Conditions to avoid
None known.

Incompatability
None known.

Hazardous Decomposition Products
Welding fumes cannot be classified simply. Their composition and quantity are dependent upon the metal being welded, the process, procedures and electrodes being used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include;. Coatings on the metal being welded (such as paint, plating, or galvanizing), number of welders and volume of work area. Contaminants in the atmosphere such as chlorinated hydrocarbon vapors from cleaning and degreasing operations. The amount and type of ventilation, the position of the welder's head with respect to the fume plume. 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. 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. Decomposition products include those originating from the volatilization, reaction or oxidation of the wire or rod plus those from the base metal and coating. 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
Will not occur.

11. TOXICOLOGICAL INFORMATION

Component Information

Chemical Name	LD50 (oral,rat)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat)
Manganese 7439-96-5	9 g/kg	-	-
Chromium 7440-47-3	-	-	-
Calcium Fluoride 7789-75-5	4250 mg/kg	-	-
Nickel 7440-02-0	9000 mg/kg	-	-
Molybdenum 7439-98-7	-	-	-
Iron 7439-89-6	984 mg/kg	-	-

Synergistic Products None known.

Specific Hazards Long term exposure can lead to Manganism.The central nervous system is affected and symptoms include muscular weakness and tremor. Exposed workers should get quarterly medical examinations for manganism. Symptoms may be similar to Parkinson's Disease, including slowness, changes in handwriting, gait impairment, muscle spasms and cramps, and less commonly, tremor and behavioral changes.

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 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 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.

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Manganese	A4	Not Listed	Not Listed	Not Listed	Not Listed
Chromium	A4	Group 3	Not Listed	Not Listed	Not Listed

Nickel	A5	Group 1 Group 2B	NTP-K	NTP-R	Listed
Calcium Fluoride	Not Listed	Group 3	Not Listed	Not Listed	Not Listed
Molybdenum	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Iron	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Nickel

Water Flea Data

1: 48 h Daphnia magna mg/L EC50 Static 100: 48 h Daphnia magna mg/L EC50

13. DISPOSAL CONSIDERATIONS

Disposal Information

Collect, transport, store or dispose in accordance with local, state, provincial and federal regulations. Material should be recycled if at all possible. Emptied container retains product residue.

14. TRANSPORTATION INFORMATION

DOT

Not Regulated

TDG

Not Regulated

15. REGULATORY INFORMATION

US EPA SARA 313

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

State Regulations

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Manganese	Not Listed	Listed	Not Listed
Chromium	Not Listed	Listed	Not Listed
Nickel	Listed	Listed	Carcinogen
Calcium Fluoride	Not Listed	Not Listed	Not Listed
Molybdenum	Not Listed	Listed	Not Listed
Iron	Not Listed	Not Listed	Not Listed

International Inventories

Chemical Name	EINECS	DSL	NDSL	TSCA	Manganese
X	X	-	X	Chromium	X
X	-	X	Nickel	X	X
-	X	Calcium Fluoride	X	X	-
X	Molybdenum	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

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.