

# MATERIAL SAFETY DATA SHEET

CERT 704FCG STL MIG .035" 25#

SDS ID: 12110

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Revised 9/08/00  
Replaces (None)  
Printed 10/31/00

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Premier Farnell Corp.  
4500 Euclid Avenue  
Cleveland, Ohio 44103  
(in Canada)

Premier Fastener Ltd.  
271 Attwell Drive  
Etobicoke, Ontario M9W 5B9

Emergency/Info Phone No. (216) 391-8300

Product Number: 12110

Description: CERT 704FCG STL MIG .035" 25#

Chemical Family: STEEL ALLOY METALS

## Section 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name	CAS No.	Wt. %
MANGANESE	07439-96-5	1-5
IRON	07439-89-6	90-99

## Section 3 - HAZARD IDENTIFICATION

ROUTES OF ENTRY: Primary route of exposure is inhalation of fumes.  
GENERAL WELDING STATEMENT: FUMES & GASES can be dangerous to your health. ARC RAYS can injure eyes & burn skin. HEAT RAYS (infrared radiation) from flame or hot metal can injure eyes. ELECTRIC SHOCK can kill. NOISE can damage hearing.  
EFFECTS OF SHORT TERM OVEREXPOSURE: Short term (acute) overexposure to welding fumes may result in discomfort such as dizziness, nausea, dryness or irritation the nose, throat or eyes, tightness in chest, fever and allergic reactions.  
EFFECTS OF LONG TERM OVEREXPOSURE: Long term (chronic) overexposure to welding fumes may lead to siderosis (iron deposits in the lungs), central nervous system damage, bone erosion, sensitization, dermatitis, and is believed by some investigators to affect pulmonary function.  
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Aggravation of pre-existing respiratory or allergic conditions may occur in some workers.

## Section 4 - FIRST AID MEASURES

Call for medical aid. Employ first aid techniques recommended by the American Red Cross. For arc burn, apply cold compresses.

## Section 5 - FIRE FIGHTING MEASURES

SPECIAL FIRE FIGHTING PROCEDURES: Nonflammable. Welding arcs and sparks can ignite combustibles and flammables. Refer to ANSI Z49.1 for fire prevention during the use of welding and allied processes.  
UNUSUAL FIRE & EXPLOSION HAZARDS: No unusual fire or explosion hazards are associated with this material.

## Section 6 - ACCIDENTAL RELEASE MEASURES

Not applicable.

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**Section 7 - HANDLING AND STORAGE**

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Read and understand the manufacturer's instructions & the precautionary label on this product. See American National Standard A49.1 "Safety in Welding and Cutting" published by the American Welding Society, PO Box 351040, Miami, FL 33135, and OSHA publication 2206 (29 CFR 1910), US Government Printing Office, Washington DC, 20402 for more details.

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**Section 8 - EXPOSURE CONTROL/PERSONAL PROTECTION**

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CAS #	PEL	TLV	STEL	LC50, ppm	LD50, mg/kg (ingestion)	LD50, mg/kg (skin)
07439-96-5	1	0.2	3*	N/A	RAT 9000	N/A
07439-89-6	N/A	N/A	N/A	N/A	RAT 30000	N/A

GENERAL WELDING PRECAUTIONS: The ACGIH recommended limit for welding fumes not otherwise classified (NOC) is 5 mg/m<sup>3</sup>. TLV-TWA's should be used as a guide in the control of health hazards and not as fine lines between safe and dangerous conditions.

VENTILATION: Use enough ventilation, local exhaust at the arc or both, to keep fumes and gases below the PEL, TLV and STEL in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.

RESPIRATORY PROTECTION: Use respirable fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below PEL, TLV and STEL.

EYE PROTECTION: Wear helmet or use face shield with appropriate filter lens (see ANSI/ASC Z49.1 section 4.2). As a rule of thumb, start with a shade which is too dark to see the weld zone. Then go to the next lighter shade which gives sufficient view of the weld zone. Provide protective screens and flash goggles, if necessary, to shield others.

PROTECTIVE CLOTHING: Wear head, hand & body protection which helps to prevent injury from radiation, sparks and electrical shock. See ANSI Z49.1. At a minimum, this includes welders gloves and a protective face shield and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.

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**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

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APPEARANCE AND ODOR: Solid rod or wire, no odor.

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**Section 10 - STABILITY AND REACTIVITY**

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STABILITY OF PRODUCT: Stable	CONDITIONS TO AVOID: None known
INCOMPATIBILITY: Not applicable	HAZARDOUS DECOMPOSITION PRODUCTS: See below

REACTIVITY STATEMENT

Welding fumes & gases cannot be classified simply. The composition & quantity of both are dependent upon the metal being brazed or welded, and the process, procedure & material used. Other conditions which also influence the composition & quantity of fumes and gases to which workers may be exposed include: materials on the metal being welded (such as paint, plating or galvanizing), the number of welders & the volume of the work area, the quantity & amount of ventilation, the position of the welder's head with respect to the fume plume,

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**Section 10 - STABILITY AND REACTIVITY (Cont.)**

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as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities).

When the electrode or filler metal is consumed, the fume and gas decomposition products generated are different in percent & form from the solid wire or rod ingredients listed in Section 2. Fume and gas decomposition products, and not the ingredients in the rod or wire, are important. The concentration of given fume or gas components may decrease or increase by many times the original concentration in the rod or filler metal. Also, new compounds not in the rod or wire may form. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the wire or rod plus those from the base metal and coating, etc. as noted above.

Reasonably expected decomposition products from normal use of these products include a complex of the oxides of the material listed in Section 2 and may include particles containing iron, manganese, silicon, chromium, nickel, or other amorphous slags. The gases formed may include carbon monoxide, carbon dioxide, ozone and nitrogen oxides (refer to "Characterization of Arc Welding Fume" available from the American Welding Society). The only way to determine the true identity of the composition products is by sampling and analysis. The composition & quantity of fumes & gases to which a worker may be overexposed can be determined from a sample obtained from inside the welder's helmet, if worn, or in the worker's breathing zone. See ANSI/AWS F1.1 "Method for Sampling Airborne Particles Generated by Welding and Allied Processes" available from the American Welding Society. Also available is AWS F1.3 "Evaluating Contaminants in the Welding Environment - A Sampling Strategy which gives additional advice on sampling.

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**Section 11 - TOXICOLOGICAL PROPERTIES**

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CARCINOGENICITY: Chromium, silica crystalline, cobalt and 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. See Section 8 for recommended exposure limits. Welding fumes must be considered as possible carcinogens under OSHA 29 CFR 1910.1200.

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**Section 12 - ECOLOGICAL INFORMATION**

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No information available.

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**Section 13 - DISPOSAL CONSIDERATIONS**

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Prevent waste from contaminating surrounding environment. Discard any product, residue, disposable container or liner in an environmentally acceptable manner in full compliance with federal, state and local regulations.

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Section 14 - TRANSPORTATION INFORMATION

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DOT Status:	Not regulated	Class: N/A	Packing Group: N/A
TDG Status:	Not regulated	Class: N/A	Packing Group: N/A
ICAO (air) Status:	Not regulated	Class: N/A	Packing Group: N/A
IMDG (sea) Status:	Not regulated	Class: N/A	Packing Group: N/A

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Section 15 - REGULATORY INFORMATION

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NFPA RATING: 0,0,0

HMIS RATING: 1,0,0

SARA 313 INGREDIENTS: Not applicable

SARA 311/312 CLASSIFICATIONS: Not applicable

WHMIS CLASSIFICATION: D2A

STATE LISTS: No information available.

US TSCA: All components of this product are listed or are exempt from listing on the TSCA inventory list.

CANADIAN DSL/NDSL: All components of this product are listed or are exempt from listing on the Canadian DSL/NDSL.

EU EINECS/ELINCS: All components of this product are listed or are exempt from listing on the EINECS or ELINCS lists.

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Section 16 - OTHER INFORMATION

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MSDS prepared by the Compliance Department. The information & recommendations provided herein are believed to be accurate as of the date hereof. However, such information & recommendations are provided without warranty of any kind and Premier Farnell Corporation disclaims any and all liability or legal responsibility for use or reliance upon same.

## DEFINITIONS:

CAS No.	Chemical Abstract Service Number
OSHA	US Department of Labor, Occupational Safety and Health Administration
PEL	Permissible Exposure Level
ACGIH	American Conference of Governmental Industrial Hygienists
TLV	Threshold Limit Value
TWA	Time Weighted Average
STEL	Short Term Exposure Limit
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program