

Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

# CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

# 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Merit™ LMC6 Product Size: 1.2 mm (3/64")

Other means of identification

 SDS number:
 200000018658

 Issue Date:
 13.01.2022

 Revision Date:
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 Version #:
 1.0

Recommended use and restriction on use

Recommended use: GMAW (Gas Metal Arc Welding)

Restrictions on use: Not known. Read this SDS before using this product.

Manufacturer/Importer/Supplier/Distributor Information

Company Name: Lincoln Electric Company (India) Pvt. Ltd.

Address: Plot No P40, Central Avenue Domestic Tariff Area, Mahindra World City

Chengalpattu, Kancheepuram District Tamil Nadu 603 004

India

Telephone: +91 44 47 424 999

Contact Person: Safety Data Sheet Questions: www.lincolnelectric.com/sds

Arc Welding Safety Information: www.lincolnelectric.com/safety

**Emergency telephone number:** 

USA/Canada/Mexico +1 (888) 609-1762 Americas/Europe +1 (216) 383-8962 Asia Pacific +1 (216) 383-8966 Middle East/Africa +1 (216) 383-8969

3E Company Access Code: 333988

#### 2. HAZARDS IDENTIFICATION

Classified according to the criteria of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Emergency Overview** 

Form: Solid Physical state: Solid

**Hazard Statement(s):** Welding arc and sparks can ignite combustible and flammable products.

Arc rays can injure eyes and burn skin. Electric shock can kill.

**Hazard Classification** Not classified as hazardous according to applicable GHS hazard classification

criteria.

**Label Elements** 

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

SDS China SDS number: 200000018658 1/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

Precautionary Statements:

Not applicable

Other hazards which do not result in GHS classification:

Electrical Shock can kill. If welding must be performed in damp locations or with wet clothing, on metal structures or when in cramped positions such as sitting, kneeling or lying, or if there is a high risk of unavoidable or accidental contact with work piece, use the following equipment: Semiautomatic DC Welder, DC Manual (Stick) Welder, or AC Welder with Reduced Voltage Control.

Arc rays can injure eyes and burn skin. Welding arc and sparks can ignite combustibles and flammable materials. Overexposure to welding fumes and gases can be hazardous. Read and understand the manufacturer's instructions, Safety Data Sheets and the precautionary labels before using this product. Refer to Section 8.

Substance(s) formed under the conditions of use:

The welding fume produced from this welding electrode may contain the following constituent(s) and/or their complex metallic oxides as well as solid particles or other constituents from the consumables, base metal, or base metal coating not listed below. Fume from this product may contain low levels of copper, typically less than 1% by weight. Overexposure to copper may cause metal fume fever, as well as skin, eye and respiratory tract irritation.

Chemical Identity	CAS-No.
Carbon dioxide	124-38-9
Carbon monoxide	630-08-0
Nitrogen dioxide	10102-44-0
Ozone	10028-15-6
Manganese	7439-96-5

# 3. COMPOSITION / INFORMATION ON INGREDIENTS

# Reportable Hazardous Ingredients Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Iron	7439-89-6	50 - <100%
Manganese	7439-96-5	1 - <5%
Silicon	7440-21-3	0.1 - <1%

<sup>\*</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### **Composition Comments:**

The term "Hazardous Ingredients" should be interpreted as a term defined in Hazard Communication standards and does not necessarily imply the existence of a welding or allied process hazard. The product may contain additional non-hazardous ingredients or may form additional compounds under the condition of use. Refer to Sections 2 and 8 for more information.

# 4. FIRST AID MEASURES

#### Ingestion:

Avoid hand, clothing, food, and drink contact with fluxes, metal fume or powder which can cause ingestion of particulate during hand to mouth activities such as drinking, eating, smoking, etc. If ingested, do not induce vomiting. Contact a poison control center. Unless the poison control center

SDS China SDS number: 200000018658 2/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

advises otherwise, wash out mouth thoroughly with water. If symptoms

develop, seek medical attention at once.

**Inhalation:** Move to fresh air if breathing is difficult. If breathing has stopped, perform

artificial respiration and obtain medical assistance at once.

**Skin Contact:** Remove contaminated clothing and wash the skin thoroughly with soap and

water. For reddened or blistered skin, or thermal burns, obtain medical

assistance at once.

**Eye contact:** Dust or fume from this product should be flushed from the eyes with

copious amounts of clean, tepid water until transported to an emergency medical facility. Do not allow victim to rub or keep eyes tightly closed.

Obtain medical assistance at once.

Arc rays can injure eyes. If exposed to arc rays, move victim to dark room, remove contact lenses as necessary for treatment, cover eyes with a padded dressing and rest. Obtain medical assistance if symptoms persist.

#### Most important symptoms/effects, acute and delayed

Symptoms:

Short-term (acute) overexposure to fumes and gases from welding and allied processes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. asthma, emphysema). Long-term (chronic) overexposure to fumes and gases from welding and allied processes can lead to siderosis (iron deposits in lung), central nervous system effects, bronchitis and other pulmonary effects. Refer to Section 11 for more information.

Hazards:

The hazards associated with welding and its allied processes such as soldering and brazing are complex and may include physical and health hazards such as but not limited to electric shock, physical strains, radiation burns (eye flash), thermal burns due to hot metal or spatter and potential health effects of overexposure to fumes, gases or dusts potentially generated during the use of this product. Refer to Section 11 for more information.

#### Indication of immediate medical attention and special treatment needed

**Treatment:** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

General Fire Hazards: As shipped, this product is nonflammable. However, welding arc and

sparks as well as open flames and hot surfaces associated with brazing and soldering can ignite combustible and flammable materials. Read and understand American National Standard Z49.1, "Safety in Welding, Cutting and Allied Processes" and National Fire Protection Association NFPA 51B, "Standard for Fire Prevention during Welding, Cutting and Other Hot Work"

before using this product.

Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** As shipped, the product will not burn. In case of fire in the surroundings:

use appropriate extinguishing agent.

Unsuitable extinguishing

media:

Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from** Welding arc and sparks can ignite combustibles and flammable products.

SDS China SDS number: 200000018658 3/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

#### the chemical:

Special protective equipment and precautions for firefighters

Special fire fighting Use standard firefighting procedures and consider the hazards of other

procedures: involved materials.

Special protective equipment

for fire-fighters:

Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus

and full protective clothing must be worn in case of fire.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

If airborne dust and/or fume is present, use adequate engineering controls and, if needed, personal protection to prevent overexposure. Refer to recommendations in Section 8.

Methods and material for containment and cleaning up: Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk. Clean up spills immediately, observing precautions in the personal protective equipment in Section 8. Avoid generating dust. Prevent product from entering any drains, sewers or water sources. Refer to Section 13 for proper disposal.

**Environmental Precautions:** 

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

#### 7. HANDLING AND STORAGE

Precautions for safe handling: Prevent formation of dust. Provide appropriate exhaust ventilation at

places where dust is formed.

Read and understand the manufacturer's instruction and the precautionary label on the product. Refer to Lincoln Safety Publications at

www.lincolnelectric.com/safety. See American National Standard Z49.1, "Safety In Welding, Cutting and Allied Processes" published by the

American Welding Society, http://pubs.aws.org and OSHA Publication 2206 (29CFR1910), U.S. Government Printing Office, www.gpo.gov.

Conditions for safe storage, including any incompatibilities: Store in closed original container in a dry place. Store in accordance with local/regional/national regulations. Store away from incompatible materials.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### **Control Parameters**

**Occupational Exposure Limits: China** 

Chemical Identity	Туре	Exposure Limit Values	Source
Manganese - as MnO2	PC-TWA	0.15 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (03 2008)
Silicon - Total dust.	PC-TWA	8 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (08 2019)

Occupational Exposure Limits: US

Chemical Identity	Туре	Exposure Limit Values	Source

SDS China SDS number: 200000018658 4/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

Manganese - Fume as Mn	Ceiling	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Manganese - Inhalable fraction as Mn	TWA	0.1 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Manganese - Respirable fraction as Mn	TWA	0.02 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Silicon - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Silicon - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Silicon - Respirable particles.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values (01 2021)
Silicon - Inhalable particles.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (01 2021)
Silicon - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (09 2016)
Silicon - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (09 2016)
	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (09 2016)
Silicon - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (09 2016)

**Biological Limit Values: China** 

None of the components have assigned exposure limits.

**Biological Limit Values: ACGIH** 

None of the components have assigned exposure limits.

Additional exposure limits under the conditions of use: China

Chemical Identity	Туре	Exposure Limit Values	Source
Carbon dioxide	PC-STEL	18,000 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
	PC-TWA	9,000 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
Carbon monoxide	MAC	15 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
	PC-STEL	30 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
	PC-TWA	20 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
	MAC	20 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
Nitrogen dioxide	PC-STEL	10 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
	PC-TWA	5 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
Ozone	MAC	0.3 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)
Manganese - as MnO2	PC-TWA	0.15 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1)

Additional exposure limits under the conditions of use: US

Chemical Identity	Туре	Exposure Limit Values	Source
Carbon dioxide	TWA	5,000 ppm	US. ACGIH Threshold Limit Values (12 2010)
	STEL	30,000 ppm	US. ACGIH Threshold Limit Values (12 2010)
	PEL	5,000 ppm 9,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Carbon monoxide	TWA	25 ppm	US. ACGIH Threshold Limit Values (12 2010)
	PEL	50 ppm 55 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

SDS\_China SDS number: 200000018658 5/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

Nitrogen dioxide	TWA	0.2 ppm		US. ACGIH Threshold Limit Values (02 2012)
	Ceiling	5 ppm	9 mg/m3	US. OSHA Table Z-1 Limits for Air
				Contaminants (29 CFR 1910.1000) (02 2006)
Ozone	PEL	0.1 ppm	0.2 mg/m3	US. OSHA Table Z-1 Limits for Air
				Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.05 ppm		US. ACGIH Threshold Limit Values (03 2014)
	TWA	0.10 ppm		US. ACGIH Threshold Limit Values (03 2014)
	TWA	0.08 ppm		US. ACGIH Threshold Limit Values (03 2014)
	TWA	0.20 ppm		US. ACGIH Threshold Limit Values (02 2020)
Manganese - Fume as Mn	Ceiling		5 mg/m3	US. OSHA Table Z-1 Limits for Air
				Contaminants (29 CFR 1910.1000) (02 2006)
Manganese - Inhalable	TWA		0.1 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
fraction as Mn				
Manganese - Respirable	TWA		0.02 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
fraction as Mn				

# Appropriate Engineering Controls

**Ventilation:** Use enough ventilation and local exhaust at the arc, flame or heat source to keep the fumes and gases from the worker's breathing zone and the general area. Train the operator to keep their head out of the fumes. **Keep exposure as low as possible.** 

# Individual protection measures, such as personal protective equipment General information: Exposure Guidelines: To reduce the po

**Exposure Guidelines:** To reduce the potential for overexposure, use controls such as adequate ventilation and personal protective equipment (PPE). Overexposure refers to exceeding applicable local limits, the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) or the Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limits (PELs). Workplace exposure levels should be established by competent industrial hygiene assessments. Unless exposure levels are confirmed to be below the applicable local limit, TLV or PEL, whichever is lower, respirator use is required. Absent these controls, overexposure to one or more compound constituents, including those in the fume or airborne particles, may occur resulting in potential health hazards. According to the ACGIH, TLVs and Biological Exposure Indices (BEIs) "represent conditions under which ACGIH believes that nearly all workers may be repeatedly exposed without adverse health effects." The ACGIH further states that the TLV-TWA should be used as a guide in the control of health hazards and should not be used to indicate a fine line between safe and dangerous exposures. See Section 10 for information on constituents which have some potential to present health hazards. Welding consumables and materials being joined may contain chromium as an unintended trace element. Materials that contain chromium may produce some amount of hexavalent chromium (CrVI) and other chromium compounds as a byproduct in the fume. In 2018, the American Conference of Governmental Industrial Hygienists (ACGIH) lowered the Threshold Limit Value (TLV) for hexavalent chromium from 50 micrograms per cubic meter of air (50  $\mu g/m^3$ ) to 0.2  $\mu g/m^3$ . At these new limits, CrVI exposures at or above the TLV may be possible in cases where adequate ventilation is not provided. CrVI compounds are on the IARC and NTP lists as posing a lung cancer and sinus cancer risk. Workplace conditions are unique and welding fume exposures levels vary. Workplace exposure assessments must be conducted by a qualified professional, such as an industrial hygienist, to determine if exposures are below applicable limits and to make recommendations when necessary for preventing overexposures.

#### Eye/face protection:

Wear helmet or use face shield with filter lens shade number 12 or darker for open arc processes – or follow the recommendations as specified in ANSI Z49.1, Section 4, based on your process and settings. No specific lens shade recommendation for submerged arc or electroslag processes. Shield others by providing appropriate screens and flash goggles.

SDS China SDS number: 200000018658 6/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

**Skin Protection** 

**Hand Protection:** Wear protective gloves. Suitable gloves can be recommended by the glove

supplier.

Other: Protective Clothing: Wear hand, head, and body protection which help to

prevent injury from radiation, open flames, hot surfaces, sparks and electrical shock. See Z49.1. At a minimum, this includes welder's gloves and a protective face shield when welding, and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing when welding, brazing and soldering. Wear dry gloves free of holes or split seams. Train the operator not to permit electrically live parts or electrodes from contacting the skin . . . or clothing or gloves if they are wet. Insulate yourself from the work piece and ground using dry plywood, rubber mats or

other dry insulation.

**Respiratory Protection:** Keep your head out of fumes. Use enough ventilation and local exhaust to

keep fumes and gases from your breathing zone and the general area. An approved respirator should be used unless exposure assessments are

below applicable exposure limits.

**Hygiene measures:** Do not eat, drink or smoke when using the product. Always observe good

personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing

and protective equipment to remove contaminants. Determine the composition and quantity of fumes and gases to which workers are exposed by taking an air sample from inside the welder's helmet if worn or in the worker's breathing zone. Improve ventilation if exposures are not below limits. See ANSI/AWS F1.1, F1.2, F1.3 and F1.5, available from the

American Welding Society, www.aws.org.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Solid welding wire or rod.

Physical state: Solid Form: Solid

Color:

Odor:

No data available.

range:

Flash Point: No data available. No data available. **Evaporation rate:** Flammability (solid, gas): No data available. Upper/lower limit on flammability or explosive limits Flammability limit - upper (%): No data available. Flammability limit - lower (%): No data available. **Explosive limit - upper:** No data available. **Explosive limit - lower:** No data available. No data available. Vapor pressure: Vapor density: No data available.

SDS China SDS number: 200000018658 7/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

**Density:** No data available. **Relative density:** No data available.

Solubility(ies)

Solubility in water:No data available.Solubility (other):No data available.Partition coefficient (n-No data available.

octanol/water):

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity: No data available.

#### 10. STABILITY AND REACTIVITY

**Reactivity:** The product is non-reactive under normal conditions of use, storage and

transport.

**Chemical Stability:** Material is stable under normal conditions.

Possibility of hazardous

reactions:

None under normal conditions.

**Conditions to avoid:** Avoid heat or contamination.

**Incompatible Materials:** Strong acids. Strong oxidizing substances. Strong bases.

Hazardous Decomposition Products:

Fumes and gases from welding and its allied processes such as brazing and soldering cannot be classified simply. The composition and quantity of both are dependent upon the metal to which the joining or hot work is applied, the process, procedure - and where applicable - the electrode or consumable 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 or worked (such as paint, plating, or galvanizing), the number of operators and the volume of the work area, the quality and amount of ventilation, the position of the operator's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities.)

In cases where an electrode or other applied material is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 3. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in Section 3, plus those from the base metal and coating, etc., as noted above. Reasonably expected fume constituents produced during arc welding and brazing include the oxides of iron, manganese and other metals present in the welding consumable or base metal. Hexavalent chromium compounds may be in the welding or brazing fume of consumables or base metals which contain chromium. Gaseous and particulate fluoride may be in the fume of consumables or flux materials which contain fluoride. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc associated with welding.

## 11. TOXICOLOGICAL INFORMATION

SDS China SDS number: 200000018658 8/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

General information: The International Agency for Research on Cancer (IARC) has determined

welding fumes and ultraviolet radiation from welding are carcinogenic to humans (Group 1). According to IARC, welding fumes cause cancer of the lung and positive associations have been observed with cancer of the kidney. Also according to IARC, ultraviolet radiation from welding causes ocular melanoma. IARC identifies gouging, brazing, carbon arc or plasma arc cutting, and soldering as processes closely related to welding. Read and understand the manufacturer's instructions, Safety Data Sheets and

the precautionary labels before using this product.

Information on likely routes of exposure

**Inhalation:** Potential chronic health hazards related to the use of welding consumables

are most applicable to the inhalation route of exposure. Refer to Inhalation

statements in Section 11.

**Skin Contact:** Arc rays can burn skin. Skin cancer has been reported.

**Eye contact:** Arc rays can injure eyes.

**Ingestion:** Health injuries from ingestion are not known or expected under normal use.

Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation:** Short-term (acute) overexposure to fumes and gases from welding and

allied processes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. asthma, emphysema). Long-term (chronic) overexposure to fumes and gases from welding and allied processes can lead to siderosis (iron deposits in lung), central nervous system effects, bronchitis and other pulmonary effects.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified

Specified substance(s):

Iron LD 50 (Rat): 98.6 g/kg

Dermal

Product: Not classified

Inhalation

Product: Not classified

Repeated dose toxicity

Product: Not classified

Skin Corrosion/Irritation

Product: Not classified

Serious Eye Damage/Eye Irritation

Product: Not classified

Respiratory or Skin Sensitization

Product: Not classified

Carcinogenicity

**Product:** Arc rays: Skin cancer has been reported.

SDS China SDS number: 200000018658 9/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

## IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: Not classified

In vivo

**Product:** Not classified

Reproductive toxicity

Product: Not classified

**Specific Target Organ Toxicity - Single Exposure** 

Product: Not classified

Specific Target Organ Toxicity - Repeated Exposure

Product: Not classified

**Aspiration Hazard** 

Product: Not classified

Other effects: Organic polymers may be used in the manufacture of various welding

consumables. Overexposure to their decomposition byproducts may result in a condition known as polymer fume fever. Polymer fume fever usually occurs within 4 to 8 hours of exposure with the presentation of flu like symptoms, including mild pulmonary irritation with or without an increase in body temperature. Signs of exposure can include an increase in white blood cell count. Resolution of symptoms typically occurs quickly, usually

not lasting longer than 48 hours.

Symptoms related to the physical, chemical and toxicological characteristics under the condition of use Inhalation:

Specified substance(s):

Manganese Overexposure to manganese fumes may affect the brain and central nervous

system, resulting in poor coordination, difficulty speaking, and arm or leg

tremor. This condition can be irreversible.

Additional toxicological Information under the conditions of use:

**Acute toxicity** 

Inhalation

Specified substance(s):

Carbon dioxide LC Lo (Human, 5 min): 90000 ppm

Carbon monoxide LC 50 (Rat, 4 h): 1300 ppm Nitrogen dioxide LC 50 (Rat, 4 h): 88 ppm

Ozone LC Lo (Human, 30 min): 50 ppm

Other effects:

Specified substance(s):

Carbon dioxide Asphyxia

Carbon monoxide Carboxyhemoglobinemia
Nitrogen dioxide Lower respiratory tract irritation

# 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

Acute hazards to the aquatic environment:

Fish

SDS China SDS number: 200000018658 10/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

**Product:** Not classified.

**Aquatic Invertebrates** 

**Product:** Not classified.

Specified substance(s):

Manganese EC 50 (Water flea (Daphnia magna), 48 h): 40 mg/l

Chronic hazards to the aquatic environment:

Fish

**Product:** Not classified.

**Aquatic Invertebrates** 

**Product:** Not classified.

**Toxicity to Aquatic Plants** 

**Product:** Not classified.

Persistence and Degradability

Biodegradation

**Product:** No data available.

**Bioaccumulative potential** 

**Bioconcentration Factor (BCF)** 

**Product:** No data available.

**Mobility in soil:** No data available.

# 13. Disposal considerations

General information: The generation of waste should be avoided or minimized whenever

possible. When practical, recycle in an environmentally acceptable, regulatory compliant manner. Dispose of non-recyclable products in accordance with all applicable Federal, State, Provincial, and Local

requirements.

**Disposal instructions:** Disposal of this product may be regulated as a Hazardous Waste. The

welding consumable and/or by-product from the welding process (including, but not limited to slag, dust, etc.) may contain levels of leachable heavy metals such as Barium or Chromium. Prior to disposal, a representative

sample must be analyzed in accordance with US EPA's Toxicity

Characteristic Leaching Procedure (TCLP) to determine if any constituents exist above regulated threshold levels. Discard any product, residue, disposable container, or liner in an environmentally acceptable manner

according to Federal, State and Local Regulations.

**Contaminated Packaging:** Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

#### 14. TRANSPORT INFORMATION

**CNDG** 

UN number or ID number:

UN Proper Shipping Name: NOT DG REGULATED

Transport Hazard Class(es)

Class: NR Label(s): –

SDS China SDS number: 200000018658 11/13



Issue Date: 13.01.2022 Revision Date: 13.01.2022

Version: 1.0

EmS No.:

Packing Group: –

Marine Pollutant: No

Special precautions for user: Not regulated.

**IMDG** 

UN number or ID number:

UN Proper Shipping Name: NOT DG REGULATED

Transport Hazard Class(es)

Class: NR Label(s): –

EmS No.:

Packing Group: –
Marine Pollutant: No

**IATA** 

UN number or ID number:

Proper Shipping Name: NOT DG REGULATED

Transport Hazard Class(es):

Class: NR
Label(s): Packing Group: Marine Pollutant: No
Cargo aircraft only: Allowed.

# 15. REGULATORY INFORMATION

# China. National Catalogue of Hazardous Wastes

Not Regulated

#### China. Highly Toxic Chemicals (Dept. of Health Notice)

Manganese Listed.

China. Very Toxic Chemicals (Public Notice No. 2)

China. Precursor Chemicals (Decree No. 445 of the PRC on Regulation for Administration of Precursor Chemicals, Appendix: Categories 1-3)

Not Regulated

China: CWC. Controlled Chemicals List (Regulations on the Administration of Controlled Chemicals, Decree No. 190, Dec. 27, 1995, as amended)

Not Regulated

China. Explosive Precursor Hazardous Chemicals (Ministry of Public Safety, 2011 version)

Not Regulated

China. National List of Ozone Depleting Substances (MEP/NDRC/MIIT Joint Notice No. 2010-72)

Not Regulated

#### China. Catalog of Hazardous Chemicals

Not Regulated

**Inventory Status:** 

Australia AICS: One or more components are not listed or are exempt from listing.

Canada DSL Inventory List: On or in compliance with the inventory

Canada NDSL Inventory: One or more components are not listed or are exempt from listing.

Ontario Inventory:

On or in compliance with the inventory
China Inv. Existing Chemical Substances:

On or in compliance with the inventory

SDS China SDS number: 200000018658 12/13



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Version: 1.0

Japan (ENCS) List:

One or more components are not listed or are exempt from listing.

Japan ISHL Listing:

One or more components are not listed or are exempt from listing.

One or more components are not listed or are exempt from listing.

Japan Pharmacopoeia Listing:

One or more components are not listed or are exempt from listing.

Korea Existing Chemicals Inv. (KECI):

On or in compliance with the inventory

Korea Existing Chemicals Inv. (KECI): Mexico INSQ:

Mexico INSQ:

New Zealand Inventory of Chemicals:

Philippines PICCS:

Taiwan Chemical Substance Inventory:

On or in compliance with the inventory

On or in compliance with the inventory

On or in compliance with the inventory

US TSCA Inventory:

EINECS, ELINCS or NLP:

On or in compliance with the inventory
On or in compliance with the inventory

# 16. OTHER INFORMATION

#### **Definitions:**

**Revision Date:** 13.01,2022

**Further Information:** Additional information is available by request.

**References:** Prepared in accordance with GB/T 16483 and GB/T 17519.

Disclaimer: The Lincoln Electric Company urges each end user and recipient of this SDS

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SDS China SDS number: 200000018658 13/13