

Safety Data Sheet: PARTSMaster PMFC MS-G

Supersedes Date Not applicable

Issuing Date 01/08/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name PARTSMaster PMFC MS-G

Recommended use Welding Flux core wire

Information on Manufacturer

Partsmaster, Div of NCH Corp.

P.O. Box 655326

Dallas, TX 75265-5326

Product Code PM080725

Chemical nature Inorganic solid blend

Emergency Telephone Number

CHEMTREC® 800-424-9300

Telephone inquiry

972-579-2477

2. HAZARD IDENTIFICATION

Color Dark gray Metallic

Physical State Solid

Odor Odorless

GHS

Classification

Physical Hazards

Health Hazard

Acute Oral Toxicity

Skin Corrosion/Irritation

Carcinogenicity

Specific target organ systemic toxicity (repeated exposure)

Other hazards

None

Category 4

Category 3

Category 2

Category 1

Labeling

Signal Word

DANGER



Hazard Statements

H302 - Harmful if swallowed

H316 - Causes mild skin irritation

H351 - Suspected of causing cancer

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary Statements

P201 - Obtain special instructions before use

P260 - Do not breathe fumes

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product

P273 - Avoid release to the environment

P281 - Use personal protective equipment as required

P202 - Do not handle until all safety precautions have been read and understood

P314 - Get medical attention/advice if you feel unwell

P330 - Rinse mouth

P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P308 + P313 - IF exposed or concerned: Get medical attention/advice

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

P405 - Store locked up

P501 - Dispose of contents/container to an approved waste disposal plant.

Dispose of contents/container to an approved incineration plant

0.5 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Chromium	7440-47-3	10-30
Nickel	7440-02-0	10-30
Titanium dioxide	13463-67-7	5-10
Manganese	7439-96-5	.1-5
Aluminum oxide	1344-28-1	<1

Calcium Fluoride	7789-75-5	0-5
------------------	-----------	-----

4. FIRST AID MEASURES

General advice	Do not breathe dust or fume. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Be sure to wash hands after use prior to eating or handling food.
Eye Contact	The molten product can cause serious burns. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.
Inhalation	Remove person to fresh air. If signs/symptoms continue, get medical attention.
Ingestion	Clean mouth with water and afterwards drink plenty of water
Notes to physician	May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Flash Point	Does not flash	Method	Not applicable
Flammability Limits in Air %	No information available.	Upper	No data available
		Lower	No data available
Suitable Extinguishing Media	Carbon dioxide (CO2). Dry chemical. Foam. Water spray.		
Specific hazards arising from the chemical	Arcs and sparks can ignite combustibles and flammable products. See American National Standard Z49.1; Safety in Welding and Cutting published by The American Welding Society .		
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.		
NFPA	Health 2	Flammability 1	Instability 0
HMIS	Health 2	Flammability 1	Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Avoid contact with skin, eyes, and clothing.
Environmental Precautions	Prevent product from contaminating soil or from entering sewage, drainage systems, and bodies of water . Do not flush into surface water or sanitary sewer system.
Methods for Containment	Pick up and arrange disposal without creating dust.
Methods for Cleaning Up	Shovel or vacuum any spilled material into a suitable container. Alloy wastes are normally collected to recover metal value . Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Neutralizing Agent	Not applicable.

7. HANDLING AND STORAGE

Handling	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands after use prior to eating, smoking, or handling food. Keep away from clothing and other combustible materials.			
Storage	Store in original container. Keep in a dry place. Keep containers tightly closed in a dry, cool and well-ventilated place.			
Storage Temperature	Minimum	No information available	Maximum	No information available
Storage Conditions	Indoor	X	Outdoor	Heated
				Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines			
Component	ACGIH TLV	OSHA PEL	NIOSH
Chromium	TWA: 0.5 mg/m ³	TWA: 1 mg/m ³	IDLH: 250 mg/m ³ TWA: 0.5 mg/m ³
Nickel	TWA: 1.5 mg/m ³	TWA: 1 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.015 mg/m ³
Titanium dioxide	TWA: 10 mg/m ³	TWA: 15 mg/m ³	IDLH: 5000 mg/m ³
Manganese	TWA: 0.2 mg/m ³	Ceiling: 5 mg/m ³	IDLH: 500 mg/m ³ STEL 3 mg/m ³ TWA: 1 mg/m ³

Aluminum oxide	TWA: 1 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	No data available
Calcium Fluoride	TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³	No data available

Engineering Measures	Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases below the TLV's in the worker's breathing zone and in the general area. Train the worker to keep his head out of the fumes .
Personal Protective Equipment	
Eye/Face Protection	Wear a helmet or use face shield with filter lens of appropriate shade number (SEE ANSI/ASCZ49.1) provide protective screen and flash goggles, if necessary, to shield others. As a rule of thumb, start a shade that is too dark to see the weld zone. Then go next lighter shade which gives sufficient view of the weld zone . Safety glasses with side-shields.
Skin Protection	Welder's leather gloves, Wear fire/flame resistant/retardant clothing, Wear suitable protective clothing, Impervious gloves.
Respiratory Protection	Use a NIOSH/MSHA approved or equivalent fume respirator or air supplied respirator when welding in confined spaces, or where local exhaust or ventilation does not keep exposure below TLV's .
General Hygiene Considerations	Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	Viscosity	Not applicable
Color	Dark gray Metallic	Odor	Odorless
Odor Threshold	Not applicable	Appearance	Metallic
pH	Not applicable	Specific Gravity	No data available
Evaporation Rate	Not applicable	Percent Volatile (Volume)	No information available
VOC Content (%)	Not applicable	Vapor Pressure	Not applicable
Vapor Density	Not applicable	Solubility	Insoluble
n-Octanol/Water Partition	No data available	Melting Point/Range	2150 2710 °F / 1177 °C
Decomposition Temperature	No data available	Boiling Point/Range	No data available
Flammability (solid, gas)	No data available		
Flash Point	Does not flash	Method	Not applicable
Autoignition Temperature	No information available.		
Flammability Limits in Air %	No information available.	Upper	No data available
		Lower	No data available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable.
Conditions to Avoid	None reasonably foreseeable
Incompatible Products	None
Hazardous Decomposition Products	Fumes and gasses produced by welding, brazing and similar processes cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, the procedures and the filler metal being used. Other conditions which also influence the composition and quantity of fumes and gases to which the worker may be exposed include: coatings on the metal being welded, the number of welders and the volume of the work space, the quality and amount of ventilation used, the position of the welder's head in relation to the fume plume, as well as the presence of contaminants in the atmosphere when the filler metal is consumed. The fume and gas decomposition products generated are different in percent and form the product ingredients listed in Section III. The products formed in normal operation include those originating from the volatilization, reaction and oxidation of the filler metal, the metal being welded, the coatings, etc. as noted above. One recommended way to determine the composition and quality of fumes and gases to which workers are exposed is to take an air sample inside the welders helmet if worn or in the workers breathing zone. See ANSI/AWS F1.1 "Method For Sampling Airborne Particles Generated By Welding And Allied Processes" available from the American Welding Society, P.O. Box 35140, Miami, FL 33135
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50	964.03
Dermal LD50	No information available
Inhalation LC50	

Gas	No information available
Mist	No information available
Vapor	No information available
Principle Route of Exposure	Inhalation, Ingestion.
Primary Routes of Entry	Inhalation
Acute Effects	
Eyes	Causes eye irritation.
Skin	May cause allergic skin reaction.
Inhalation	Welding fumes may result in discomfort such as: dizziness, nausea, or dryness or irritation of nose, throat, or eyes. Fumes can aggravate asthma, bronchial conditions, or allergies. Individuals with allergies or impaired respiratory function may have symptoms worsen by exposure to welding fumes . Inhalation may cause central nervous system effects. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic Toxicity	May cause sensitization by skin contact. Prolonged exposure may cause chronic effects. Prolonged exposure to elevated noise levels during operations may affect hearing .
Target Organ Effects	Respiratory system, Central nervous system, Kidney, Blood, Liver, Central Vascular System, Eyes, Skin, Immune system, Lungs, Nasal Cavities.
Aggravated Medical Conditions	Skin disorders, Central nervous system, Kidney disorders, Liver disorders, Respiratory system.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Chromium	no data available	no data available	no data available	no data available	no data available
Nickel	> 9000 mg/kg (Rat)	no data available	no data available	no data available	no data available
Titanium dioxide	> 10000 mg/kg (Rat)	no data available	no data available	no data available	no data available
Manganese	= 9 g/kg (Rat)	no data available	no data available	no data available	no data available
Aluminum oxide	> 5000 mg/kg (Rat)	no data available	no data available	no data available	no data available
Calcium Fluoride	= 4250 mg/kg (Rat)	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Chromium	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Nickel	no data available	no data available	no data available	no data available	nasal cavities, lungs, skin (lung and nasal cancer) lungs, skin, nasal cavities (lung and nasal cancer)
Titanium dioxide	no data available	no data available	no data available	no data available	respiratory system
Manganese	no data available	no data available	no data available	no data available	CNS, respiratory system, blood, kidneys
Aluminum oxide	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Calcium Fluoride	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Other
Chromium	not applicable	not applicable	not applicable	not applicable	not applicable
Nickel	not applicable	Group 1 Group 2B	Known Reasonably Anticipated	X	not applicable
Titanium dioxide	not applicable	Group 2B	not applicable	X	not applicable
Manganese	not applicable	not applicable	not applicable	not applicable	not applicable
Aluminum oxide	not applicable	not applicable	not applicable	not applicable	not applicable
Calcium Fluoride	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Chromium	no data available	no data available	no data available	no data available	N/A
Nickel	EC50 = 0.18 mg/L Pseudokirchneriella subcapitata 72 h EC50 0.174 - 0.311 mg/L Pseudokirchneriella subcapitata 96 h	LC50 > 100 mg/L Brachydanio rerio 96 h LC50 = 1.3 mg/L Cyprinus carpio 96 h LC50 = 10.4 mg/L Cyprinus carpio 96 h	no data available	EC50 > 100 mg/L 48 h EC50 = 1 mg/L 48 h	N/A
Titanium dioxide	no data available	no data available	no data available	no data available	N/A

Manganese	no data available	no data available	no data available	no data available	N/A
Aluminum oxide	no data available	no data available	no data available	no data available	N/A
Calcium Fluoride	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT Not regulated
TDG Not regulated
ICAO Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. REGULATORY INFORMATION

Inventories
TSCA Complies
DSL Does not Comply
U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Chromium	7440-47-3	10-30	1.0
Nickel	7440-02-0	10-30	0.1
Manganese	7439-96-5	.1-5	1.0
Aluminum oxide	1344-28-1	<1	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Chromium	5000 lb	Not applicable
Nickel	100 lb	Not applicable
Titanium dioxide	Not applicable	Not applicable
Manganese	Not applicable	Not applicable
Aluminum oxide	Not applicable	Not applicable
Calcium Fluoride	Not applicable	Not applicable

U.S. State Regulations

California Proposition 65 This product contains the following Proposition 65 chemicals

Component	CAS-No	California Prop. 65
Chromium	7440-47-3	carcinogen, initial date 2/27/87, developmental female, male 12/19/08
Nickel	7440-02-0	carcinogen
Titanium dioxide	13463-67-7	carcinogen

16. OTHER INFORMATION

Prepared By	Don Stewart Christopher Drogin
Supersedes Date	Not applicable
Issuing Date	01/08/2013
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

Partsmaster, Div of NCH Corp. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.