

051-526  
051-635

# SAFETY DATA SHEET

Lucas Octane Booster

## Section 1. Identification

GHS product identifier : Lucas Octane Booster  
 Other means of identification : Not available.  
 Product number : 10026, 10725

Relevant identified uses of the substance or mixture and uses advised against  
 Gasoline additive.

Supplier's details : Lucas Oil Products, Inc  
 302 North Sheridan Street  
 Corona, California 92880-2067  
 Toll Free: (800) 342-2512  
 Tel: (951) 270-0154  
 Fax: (951) 270-1902  
 Website: www.LucasOil.com

Emergency telephone number (with hours of operation) : (951) 493-1149  
 (951) 847-5949  
 Markn@lucasoil.com  
 7:00A.M. to 5:00P.M. Monday thru Friday

## Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
 Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4  
 ACUTE TOXICITY: ORAL - Category 3  
 ACUTE TOXICITY: INHALATION - Category 4  
 SKIN CORROSION/IRRITATION - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3  
 ASPIRATION HAZARD - Category 1

### GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements\*

: Combustible liquid.  
 Toxic if swallowed.  
 Harmful if inhaled.  
 Causes skin irritation.  
 May be fatal if swallowed and enters airways.  
 May cause respiratory irritation.

### Precautionary statements

General

: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.



## Section 2. Hazards identification

Prevention	: Wear protective gloves. Wear eye or face protection. Keep away from flames and hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Response	: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

## Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

### CAS number/other identifiers

CAS number	: Not applicable.
Product code	: Not available.

Ingredient name	%	CAS number
Solvent naphtha (petroleum), medium aliphatic	30 - 60	64742-88-7
Tricarbonyl(methylcyclopentadienyl)manganese	1 - 5	12108-13-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.



## Section 4. First aid measures

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : Harmful if inhaled. May cause respiratory irritation.  
**Skin contact** : Causes skin irritation.  
**Ingestion** : Toxic if swallowed. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness  
**Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
**Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
**Ingestion** : Adverse symptoms may include the following:  
 nausea or vomiting

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  
**Specific treatments** : No specific treatment.  
**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.  
**Unsuitable extinguishing media** : Do not use water jet or water-based fire extinguishers.

**Specific hazards arising from the chemical** : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.



## Section 5. Fire-fighting measures

- Hazardous thermal decomposition products : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metaloxide/oxides
- Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

## Section 7. Handling and storage

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), medium aliphatic	OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 400 mg/m <sup>3</sup> 8 hours. OSHA PEL (United States, 6/2010). TWA: 100 ppm 8 hours. TWA: 400 mg/m <sup>3</sup> 8 hours. Manufacturer (United States). TWA: 100 ppm 8 hours. Form: All forms.
Tricarbonyl(methylcyclopentadienyl)manganese	ACGIH TLV (United States, 2/2010). Absorbed through skin. TWA: 0.2 mg/m <sup>3</sup> , (as Mn) 8 hours. OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 0.2 mg/m <sup>3</sup> , (as Mn) 8 hours. NIOSH REL (United States, 6/2009). Absorbed through skin. TWA: 0.2 mg/m <sup>3</sup> , (as Mn) 10 hours. OSHA PEL (United States, 6/2010). CEIL: 5 mg/m <sup>3</sup> , (as Mn)

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

## Section 8. Exposure controls/personal protection

- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

- Physical state : Liquid. [Clear.]
- Color : Yellow. [Light]
- Odor : Petroleum solvent
- Odor threshold : Not available.
- pH : Not available.
- Melting point : Not available.
- Boiling point : 191.11 to 211.11°C (376 to 412°F)
- Flash point : Closed cup: 87.77°C (190°F)
- Burning time : Not applicable.
- Burning rate : Not applicable.
- Evaporation rate : Not available.
- Flammability (solid, gas) : Not available.
- Lower and upper explosive (flammable) limits : Not available.
- Vapor pressure : Not available.
- Vapor density : Not available.
- Relative density : 0.8706
- Solubility : Negligible at 25°C
- Solubility in water : Not available.
- Partition coefficient: n-octanol/water : Not available.
- Auto-ignition temperature : Not available.
- Decomposition temperature : Not available.
- \*SADT : Not available.
- Viscosity : Kinematic (100°C (212°F)): 0.04 cm<sup>2</sup>/s (4 cSt)

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), medium aliphatic	LC50 Inhalation Gas.	Rat	>5500 ppm	4 hours
	LD50 Dermal LD50 Oral	Rabbit Rat	>3000 mg/kg >5000 mg/kg	- -
Tricarbonyl(methylcyclopentadienyl) manganese	LC50 Inhalation Dusts and mists	Rat	247 mg/m <sup>3</sup>	1 hours
	LC50 Inhalation Dusts and mists	Rat	76 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	140 mg/kg	-
	LD50 Dermal LD50 Oral	Rat Rat	665 mg/kg 8 mg/kg	- -

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Tricarbonyl(methylcyclopentadienyl) manganese	Skin - Mild irritant	Rabbit	-	24 hours 100 mg	-

#### Sensitization

Skin	: There is no data available.
Respiratory	: There is no data available.

#### Mutagenicity

There is no data available.

#### Carcinogenicity

There is no data available.

#### Reproductive toxicity

There is no data available.

#### Teratogenicity

There is no data available.

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), medium aliphatic	Category 3	Not applicable.	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard



## Section 11. Toxicological information

Name	Result
Solvent naphtha (petroleum), medium aliphatic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

### Potential acute health effects

Eye contact : Causes serious eye irritation.  
 Inhalation : Harmful if inhaled. May cause respiratory irritation.  
 Skin contact : Causes skin irritation.  
 Ingestion : Toxic if swallowed. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness  
 Inhalation : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
 Skin contact : Adverse symptoms may include the following:  
 irritation  
 redness  
 Ingestion : Adverse symptoms may include the following:  
 nausea or vomiting

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects : No known significant effects or critical hazards.  
 Potential delayed effects : No known significant effects or critical hazards.

#### Long term exposure

Potential immediate effects : No known significant effects or critical hazards.  
 Potential delayed effects : No known significant effects or critical hazards.

### Potential chronic health effects

General : No known significant effects or critical hazards.  
 Carcinogenicity : No known significant effects or critical hazards.  
 Mutagenicity : No known significant effects or critical hazards.  
 Teratogenicity : No known significant effects or critical hazards.  
 Developmental effects : No known significant effects or critical hazards.  
 Fertility effects : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	269.4 mg/kg
Dermal	4713.8 mg/kg
Inhalation (gases)	9782.6 ppm
Inhalation (dusts and mists)	2.559 mg/L





## Section 12. Ecological information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Tricarbonyl(methylcyclopentadienyl) manganese	3.7	-	low

### Mobility in soil




Soil/water partition coefficient (K<sub>oc</sub>) : There is no data available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN2810	UN2810	UN2810
UN proper shipping name	TOXIC LIQUID, ORGANIC, N.O.S. (Tricarbonyl(methylcyclopentadienyl) manganese)	TOXIC LIQUID, ORGANIC, N.O.S. (Tricarbonyl(methylcyclopentadienyl) manganese)	TOXIC LIQUID, ORGANIC, N.O.S. (Tricarbonyl(methylcyclopentadienyl) manganese)
Transport hazard class(es)	6.1 	6.1 	6.1 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	No.
Additional information	-	-	-



## Section 14. Transport information

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

## Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Tricarbonyl(methylcyclopentadienyl)manganese	1 - 5	Yes.	-	-	-	-

SARA 304 RQ : Not applicable.

### SARA 311/312

Classification : Fire hazard  
Immediate (acute) health hazard

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Solvent naphtha (petroleum), medium aliphatic Tricarbonyl(methylcyclopentadienyl)manganese	30 - 60 1 - 5	Yes. No.	No. No.	No. No.	Yes. Yes.	No. No.

### SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	1 - 5
Supplier notification	Tricarbonyl(methylcyclopentadienyl)manganese	12108-13-3	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

Massachusetts : The following components are listed: Tricarbonyl(methylcyclopentadienyl)manganese  
New York : The following components are listed: Tricarbonyl(methylcyclopentadienyl)manganese



## Section 15. Regulatory information

- New Jersey : The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic; Tricarbonyl(methylcyclopentadienyl)manganese
- Pennsylvania : The following components are listed: Tricarbonyl(methylcyclopentadienyl)manganese
- California Prop. 65  
No products were found.
- International regulations
- International lists : Australia inventory (AICS): All components are listed or exempted.  
China inventory (IECSC): All components are listed or exempted.  
Japan inventory: Not determined.  
Korea inventory: All components are listed or exempted.  
Malaysia Inventory (EHS Register): Not determined.  
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.  
Philippines inventory (PICCS): All components are listed or exempted.  
Taiwan inventory (CSNN): Not determined.
- Chemical Weapons Convention List Schedule I Chemicals : Not listed
- Chemical Weapons Convention List Schedule II Chemicals : Not listed
- Chemical Weapons Convention List Schedule III Chemicals : Not listed

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health : 2 \* Flammability : 2 Physical hazards : 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)

Health : 2 Flammability : 2 Instability : 0

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### History

- Date of issue mm/dd/yyyy : 12/30/2012
- Version : 1
- Revised Section(s) : Not applicable.
- Prepared by : KMK Regulatory Services Inc.
- Key to abbreviations : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient

## Section 16. Other information

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

