SAFETY DATA SHEET

MAX-BOOST

Section 1. Identification

GHS product identifier : MAX-BOOST

Product code : 301697175039

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Consumer products: Fuel additive.

Uses advised against	Reason
None known.	

Supplier's details : Calumet Branded Products, LLC
2780 Waterfront Pkwy E. Drive Suite 200
Indianapolis, IN 46214
USA
Technical Services:317-328-5660

Emergency telephone number : 24 hr. CHEMTREC 1-800-424-9300 / International 1-703-527-3887

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 : ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 3
ASPIRATION HAZARD - Category 1
AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Harmful if swallowed.
May be fatal if swallowed and enters airways.
Toxic if inhaled.
Harmful to aquatic life with long lasting effects.

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.

Prevention : Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.

Section 2. Hazards identification

Storage : Store locked up.

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.

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light	≥90 - ≤99	64742-47-8
tricarbonyl(methylcyclopentadienyl)manganese	≤1.5	12108-13-3
1,2,4-trimethylbenzene	≤0.1	95-63-6
benzo[a]pyrene	≤0.0022	50-32-8

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 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 10 minutes. Get medical attention if irritation occurs.

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. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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 : No known significant effects or critical hazards.

Inhalation : Toxic if inhaled.

Skin contact : No known significant effects or critical hazards.

Section 4. First aid measures

Ingestion : Harmful if swallowed. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

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 an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/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.

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. 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 specialized 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".

Section 6. Accidental release measures

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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. 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. 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. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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 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. 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light	**ACGIH TLV (United States, 1/2022). [Kerosene] Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
tricarbonyl(methylcyclopentadienyl)manganese	**ACGIH TLV (United States, 1/2022). Absorbed through skin.** TWA: 0.2 mg/m³, (as Mn) 8 hours. **OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** TWA: 0.2 mg/m³, (as Mn) 8 hours. **NIOSH REL (United States, 10/2020). Absorbed through skin.** TWA: 0.2 mg/m³, (as Mn) 10 hours.

Section 8. Exposure controls/personal protection

1,2,4-trimethylbenzene	**OSHA PEL (United States, 5/2018). [Manganese compounds]** CEIL: 5 mg/m³, (as Mn) **OSHA PEL 1989 (United States, 3/1989). [Trimethyl benzene]** TWA: 25 ppm 8 hours. TWA: 125 mg/m³ 8 hours. **NIOSH REL (United States, 10/2020).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours. **ACGIH TLV (United States, 1/2022).** TWA: 10 ppm 8 hours.
benzo[a]pyrene	None.

Biological exposure indices

Ingredient name	Exposure indices
benzo[a]pyrene	**ACGIH BEI (United States, 1/2022) [POLYCYCLIC AROMATIC HYDROCARBONS]** BEI: 2.5 µg/l, 1-hydroxypyrene [in urine]. Sampling time: end of shift at end of workweek. BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 3-hydroxybenzo(a)pyrene [in urine]. Sampling time: end of shift at end of workweek.

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.

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: safety glasses with side-shields.

Skin 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.

Section 8. Exposure controls/personal protection

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 : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Purple. [Light]

Odor : Odorless.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range : >222°C (>431.6°F)

Flash point : Closed cup: 95°C (203°F) [Pensky-Martens]

Evaporation rate : 0.19 (butyl acetate = 1)

Flammability : Not available.

Lower and upper explosion limit/flammability limit : Lower: 0.6%
Upper: 5.5%

Vapor pressure :

Ingredient name	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
benzene	75.01	10				
toluene	23.17	3.1				
ethylbenzene	9.3	1.2				
mesitylene	2.4	0.32				
1,2,4-trimethylbenzene	2.25	0.3				
Distillates (petroleum), hydrotreated light	0.23 to 0.45	0.031 to 0.06				
naphthalene	0.054	0.0072	OECD 104			
tricarbonyl (methylcyclopentadienyl) manganese	0.046	0.0061				
Solvent naphtha (petroleum), heavy arom.	0.02	0.0027				

Relative vapor density : >1 [Air = 1]

Relative density : 0.8063

Solubility(ies) :

Media	Result
cold water	Not soluble
hot water	Not soluble

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Section 9. Physical and chemical properties and safety characteristics

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Solvent naphtha (petroleum), heavy arom.	220 to 250	428 to 482	ASTM E 659
Distillates (petroleum), hydrotreated light	>220	>428	
ethylbenzene	432.22	810	
toluene	480	896	
benzene	498	928.4	
1,2,4-trimethylbenzene	500	932	
naphthalene	526 to 587	978.8 to 1088.6	DIN 51794
mesitylene	559	1038.2	

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): 2 mm^2/s (2 cSt)

Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

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 : No specific data.

Incompatible materials : No specific data.

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
Distillates (petroleum), hydrotreated light	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
tricarbonyl (methylcyclopentadienyl) manganese	LC50 Inhalation Dusts and mists	Rat	247 mg/m³	1 hours
	LC50 Inhalation Dusts and mists	Rat	76 mg/m³	4 hours
	LC50 Inhalation Vapor	Rat	76 mg/m³	4 hours
	LD50 Dermal	Rabbit	140 mg/kg	-
	LD50 Dermal	Rat	665 mg/kg	-
	LD50 Oral	Rat	8 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
tricarbonyl (methylcyclopentadienyl) manganese	Skin - Mild irritant	Rabbit	-	24 hours 100 mg	-
benzo[a]pyrene	Skin - Mild irritant	Mouse	-	14 ug	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
benzo[a]pyrene	-	1	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1,2,4-trimethylbenzene	Category 3 Category 3	-	Respiratory tract irritation Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1
1,2,4-trimethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Toxic if inhaled.

Skin contact : No known significant effects or critical hazards.

Ingestion : Harmful if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

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

Section 11. Toxicological information

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
MAX-BOOST	541.7	2018.6	N/A	5.1	5.1
Distillates (petroleum), hydrotreated light	N/A	2500	N/A	N/A	N/A
tricarbonyl(methylcyclopentadienyl)manganese	8	140	N/A	0.076	0.076
1,2,4-trimethylbenzene	5000	N/A	N/A	18	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light	Acute EC50 >1000 mg/l	Algae	72 hours
	Acute LC50 >1000 mg/l Fresh water	Daphnia	48 hours
1,2,4-trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - Elasmopus pectenicrus - Adult	48 hours
	Acute LC50 7720 µg/l Fresh water	Fish - Pimephales promelas	96 hours
benzo[a]pyrene	Acute EC50 5 µg/l Fresh water	Algae - Scenedesmus acutus	72 hours
	Acute LC50 11 mg/l Marine water	Crustaceans - Gammarus duebeni	48 hours
	Acute LC50 0.25 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Chronic NOEC 12 µg/l Fresh water	Crustaceans - Eurytemora affinis - Nauplii	21 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Distillates (petroleum), hydrotreated light	OECD 301F Ready Biodegradability - Manometric Respirometry Test	69 % - Readily - 28 days	-	-

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated light	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
tricarbonyl (methylcyclopentadienyl) manganese	3.4	-	low
1,2,4-trimethylbenzene	3.63	243	low
benzo[a]pyrene	6.13	-	high

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not 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 at all times 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 emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.

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 IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: naphthalene

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Water Act (CWA) 307: naphthalene; ethylbenzene; toluene; benzene; benzo[a] pyrene

Clean Water Act (CWA) 311: naphthalene; ethylbenzene; toluene; benzene

Section 15. Regulatory information

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.	100	8.7	100	8.7

SARA 304 RQ : 6666.7 lbs / 3026.7 kg [991.6 gal / 3753.8 L]

SARA 311/312

Classification : ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 3
ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	%	Classification
Distillates (petroleum), hydrotreated light	≥90 - ≤99	ASPIRATION HAZARD - Category 1
tricarbonyl (methylcyclopentadienyl) manganese	≤1.5	ACUTE TOXICITY (oral) - Category 2 ACUTE TOXICITY (dermal) - Category 2 ACUTE TOXICITY (inhalation) - Category 1
1,2,4-trimethylbenzene	≤0.1	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1

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: METHYLCYCLOPENTADIENYL MANGANESE TRICARBONYL

New York : The following components are listed: Manganese, tricarbonul methylcyclopentadienyl

New Jersey : The following components are listed: METHYLCYCLOPENTADIENYL MANGANESE TRICARBONYL

Section 15. Regulatory information

Pennsylvania : The following components are listed: MANGANESE, TRICARBONYL[(1,2,3,4,5-.ETA.) -1-METHYL-2,4-CYCLOPENTADIEN-1-YL]-

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Information provided is based on industrial use and may not be relevant to consumer applications.

Ingredient name	Concentration (%)	No significant risk level	Maximum acceptable dosage level
Naphthalene	0.0735	Yes.	-
Ethylbenzene	<0.0015	Yes.	-
Toluene	<0.0015	-	Yes.
Benzene	<0.0015	Yes.	Yes.
Benzo[a]pyrene	<0.0015	Yes.	-

International lists

National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States : All components are active or exempted.

Viet Nam : All components are listed or exempted.

Section 16. Other information

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

Flammability

Health

Instability/Reactivity

Special

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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.

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	Calculation method
ACUTE TOXICITY (inhalation) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method
AQUATIC HAZARD (ACUTE) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

History

Section 16. Other information

Date of issue/Date of revision : 12/14/2022

Date of previous issue : 06/22/2022

Version : 7.01

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
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

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.