



SAFETY DATA SHEET

SECTION 1. Identification of the hazardous chemical substance or mixture and of the supplier or manufacturer

GHS product identifier	Octane Boost	
Other means of identification		
Product Code	No. MX05077 (Item# 1008063)	
Recommended use of the chemical and restrictions on use		
Recommended use	Fuel additive	
Recommended restrictions	None known.	
Suppliers details		
Company name	CRC Industrias de Mexico S. de R. L. de C.V.	
Address	Cerrada Canadá 201-H Fraccionamiento Industrial Martel Santa Catarina, NL 66367 Mexico	
Telephone	General Information	81-2139-0572
Website	www.crc-mexico.com	
E-mail	SoporteTecnico@crcind.com	
Emergency phone number	24-Hour Emergency	01-800-681-9531

SECTION 2: Hazard identification

Classification of the substance or mixture

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 5
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Germ cell mutagenicity	Category 2
	Carcinogenicity	Category 2
	Specific target organ toxicity, single exposure	Category 1
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

GHS label elements, including precautionary statements



Signal word Danger

Hazard statement

H227	Combustible liquid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H370	Causes damage to organs.

H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement**Prevention**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe mist or vapor.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P312 Call a POISON CENTER/doctor if you feel unwell.
P370 + P378 In case of fire: Use appropriate media to extinguish.
P391 Collect spillage.

Storage

P403 Store in a well-ventilated place.
P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification None known.

Supplemental information None.

SECTION 3. Composition/information on ingredients**Mixtures**

Chemical identity	Common name(s), synonym(s)	CAS number and other unique identifiers	Concentration
distillates (petroleum), hydrodesulfurized middle	Diesel Fuel No. 2	64742-80-9	80 - 90
solvent naphtha (petroleum), heavy arom.		64742-94-5	10 - 20
methylcyclopentadienyl-manganese tricarbonyl		12108-13-3	1 - 3
naphthalene		91-20-3	1 - 3
cumene		98-82-8	< 0.2

SECTION 4. First-aid measures**Description of necessary first-aid measures**

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing. Wash with plenty of soap and water. Get medical advice/attention if you feel unwell. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Dizziness. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective actions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

SECTION 6. Measures that must be taken in the event of accidental spillage or an accidental leak

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
For emergency responders	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

SECTION 7. Handling and storage

Precautions to ensure safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Mexico. Occupational Exposure Limit Values

Components	Type	Value
cumene (CAS 98-82-8)	TWA	50 ppm
distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)	TWA	5 mg/m ³
methylcyclopentadienyl-manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m ³
naphthalene (CAS 91-20-3)	STEL	15 ppm
	TWA	10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
cumene (CAS 98-82-8)	TWA	50 ppm	
distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)	TWA	5 mg/m ³	Inhalable fraction.
methylcyclopentadienyl-manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m ³	
naphthalene (CAS 91-20-3)	TWA	10 ppm	
solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	200 mg/m ³	Non-aerosol.

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Mexico OELs: Skin designation

methylcyclopentadienyl-manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

methylcyclopentadienyl-manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	Can be absorbed through the skin.

Control banding approach Not available.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Hazardous Chemicals (NOM-028-STPS-2012, System for administration of workplace safety in the process and critical equipment for handling hazardous chemicals, Appendix A, Table A.I, 9/6/2012)

cumene (CAS 98-82-8)	4600 KG
----------------------	---------

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Nitrile. Neoprene. Polyvinyl chloride (PVC).

Other Wear appropriate chemical resistant clothing.

Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. 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.

SECTION 9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Amber.
Odor	Petroleum.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	36 °F (2.2 °C) estimated
Initial boiling point and boiling range	320 °F (160 °C) estimated
Flash point	158 °F (70 °C) Setaflash
Evaporation rate	Slow.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.6 % estimated
Flammability limit - upper (%)	7.5 % estimated
Vapor pressure	0.6 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.84
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	410 °F (210 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Molecular weight	Not available.
Other information	
Percent volatile	100 % estimated

SECTION 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Aldehydes.

SECTION 11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause damage to organs by inhalation.
Skin contact	May be harmful in contact with skin. Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. Dizziness. Skin irritation. May cause redness and pain.

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

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Harmful if inhaled. May be harmful in contact with skin.

Product	Species	Test Results
Octane Boost		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg calculated
Oral		
LD50	Rat	1200 mg/kg calculated
Components	Species	Test Results
distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	10 - 20 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg
methylcyclopentadienyl-manganese tricarbonyl (CAS 12108-13-3)		
Acute		
Oral		
LD50	Rat	51.8 mg/kg
naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 20 g/kg
solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 22 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization**Respiratory sensitization** Not a respiratory sensitizer.**Skin sensitization** This product is not expected to cause skin sensitization.**Germ cell mutagenicity** Suspected of causing genetic defects.**Carcinogenicity** Suspected of causing cancer.**ACGIH Carcinogens**

distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9) A2 Suspected human carcinogen.

naphthalene (CAS 91-20-3) A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

cumene (CAS 98-82-8) 2B Possibly carcinogenic to humans.

naphthalene (CAS 91-20-3) 2B Possibly carcinogenic to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.**Specific target organ toxicity - single exposure** Causes damage to organs.**Specific target organ toxicity - repeated exposure** Not classified.**Aspiration hazard** May be fatal if swallowed and enters airways.**Other information** Not available.**SECTION 12. Ecotoxicological information****Ecotoxicity** Toxic to aquatic life with long lasting effects.

Components	Species		Test Results
distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia pulex</i>)	2.7 - 5.1 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	8.8 mg/l, 96 hours
			8.8 mg/l, 96 hours
solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	<i>Daphnia magna</i>	1.1 mg/l, 48 hours
Fish	EC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	2 mg/l, 96 hours
	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	2 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.**Bioaccumulative potential****Partition coefficient n-octanol / water (log Kow)**

cumene	3.66
distillates (petroleum), hydrodesulfurized middle	3.3 - 6
methylcyclopentadienyl-manganese tricarbonyl	3.7
naphthalene	3.3

Mobility in soil No data available.**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.**SECTION 13. Disposal considerations****Disposal methods****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.**Local disposal regulations** Dispose in accordance with all applicable regulations.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. Transport information**SCT**

Not regulated as dangerous goods.

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

SECTION 15. Regulatory information**Safety, health and environmental regulations specific for the product in question****Mexico. Hazard identification guidance list (NOM-018-STPS)**

cumene (CAS 98-82-8)	Listed.
distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)	Listed.
methylcyclopentadienyl-manganese tricarbonyl (CAS 12108-13-3)	Listed.
naphthalene (CAS 91-20-3)	Listed.
solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	Listed.

Mexico. Substances subject to reporting for the pollutant release and transfer registry (PRTR)

cumene (CAS 98-82-8)	1000 KG
	5000 KG

International regulations**Montreal Protocol**

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

naphthalene (CAS 91-20-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16. Other included information relevant to the preparation and updating of safety data sheets

Issue date 10-04-2018

Version # 01

List of abbreviations

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

SCT: Secretariat of Communications and Transportation (NOM-002-SCT/2011).

DOT: Department of Transportation (49 CFR 172.101).

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.

IATA: International Air Transport Association.

IMDG Code: International Maritime Dangerous Goods Code.

MARPOL: International Convention for the Prevention of Pollution from Ships.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

References

NOM-047-SSA1-2011 – Workplace Biological Exposure Indices (BEIs) to Chemical Substances Workplace Threshold Quantities of Hazardous Chemicals

NOM-028-STPS-2012 – Work-Safety Management System for Processes and Critical Equipment Handling Hazardous Chemical Substances

NOM-018-STPS-2000 – Workplace Hazardous Chemical Substances Communication and Identification Standard

NOM-010-STPS-2014 (second revision) – Occupational Exposure Limits – becomes effective on April 28, 2016

Further information

CRC # 636J/1002675

Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industrias de Mexico S. de R. L. de C.V..

Revision information

Product and Company Identification: Product Codes

GHS: Classification