

Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

1. IDENTIFICATION OF THE SUBSTANCE / APPLICATION AND THE COMPANY

1.1 Product Identifier Trade Name: Hi Test Product Number: 83916

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised AgainstProduct Use:Gasoline Octane Booster

Restrictions on Use: None known

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer:	Maxima Racing Oils
	9266 Abraham Way
	Santee, CA 92071
	USA
Information Phone Number:	+1 619 449 5000
E-mail:	info@maximausa.com

1.4 Emergency Telephone Number Emergency Spill Information:

In USA: CHEMTREC +1 703 527 3887 (24 hours) Outside USA: +1 619 449 5000

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

GHS/CLP (1272/2008) Classification:

Flammable Liquid Category 2 (H225) Aspiration Toxicity Category 1 (H304) Skin Irritation Category 2 (H315) Eye Irritation Category 2 (H319) Toxic to Reproduction Category 2 (H361d) Specific Target Organ Toxicity Single Exposure Category 3 (H336) Specific Target Organ Toxicity Repeated Exposure Category 2 (H373)

2.2 Label Elements DANGER





Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

Hazard Statements	Precautionary Phrases
H225 Highly flammable liquid and vapor.	P101 If medical advice is needed, have product
H304 May be fatal if swallowed and enters	container or label at hand.
airways.	P102 Keep out of reach of children.
H315 Causes skin irritation.	P201 Obtain special instructions before use.
H319 Causes serious eye irritation.	P202 Do not handle until all safety precautions
H336 May cause drowsiness or dizziness.	have been read and understood.
H361 Suspected of damaging the unborn child.	P210 Keep away from heat, sparks, open flames,
H373 May cause damage to central nervous	and hot surfaces. No smoking.
system through prolonged or repeated exposure	P233 Keep container tightly closed.
by inhalation	P243 Take precautionary measures against static
	discharge.
	P260 Do not breathe mist, vapors or spray.
	P264 Wash thoroughly after handling.
	P271 Use only outdoors or in a well-ventilated
	area.
	P280 Wear protective gloves and eye protection.
	P301 + P310 IF SWALLOWED: Immediately call a
	POISON CENTER or doctor.
	P331 Do NOT induce vomiting.
	P303 + P361 + P353 IF ON SKIN (or hair): Take off
	immediately all contaminated clothing. Rinse skin with water.
	P332 + P313 If skin irritation occurs: Get medical
	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 or doctor if you feel
	unwell.
	P305 + P351 + P338 IF IN EYES: Rinse cautiously
	with water for several minutes. Remove contact
	lenses, if present and easy to do. Continue
	rinsing.
	P337 + P313 If eye irritation persists: Get medical
	attention.
	P308 + P313 IF exposed or concerned: Get
	medical attention.
	P370 + P378 In case of fire: Use carbon dioxide,
	foam or dry chemical to extinguish.
	P403 + P235 Store in a well-ventilated place.
	Keep cool. Keep container tightly closed.
	P405 Store locked up.



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

P501 Dispose of contents and container in
accordance with local and national regulations

2.3 Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Name	CAS#	EINECS#	GHS/CLP Classification	% w/w
Toluene	108-88-3	203-625-9	Flam. Liquid 2 H225 Skin Irrit. 2 H315 Asp. Tox. 1 H304 Repr. 2 H361d STOT SE 3 (H336) STOT RE 2 (H371)	80-100
Isopropanol	opropanol 67-63-0 200-661-7 Flam. Liquid 2 H225 STOT SE 3 H336 (H336)		5-10	

The exact percentage and composition are being withheld as a trade secret

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye: Flush eyes with large quantities of water, holding the eyelids apart. Get medical attention if irritation develops or persists

Skin: Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation or symptoms develop, get medical attention. Launder clothing before re-use.

Inhalation Immediately remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention. **Ingestion:** Aspiration Hazard. Do not induce vomiting. If conscious, rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Get immediate medical attention.

4.2 Most Important symptoms and effects, both acute and delayed: Causes eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. Aspiration hazard: Harmful or fatal if swallowed. Prolonged overexposure may cause nervous system damage. Possible developmental hazard. May adversely affect the developing fetus or cause birth defects based on animal data.



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

4.3 Indication of any immediate medical attention and special treatment needed: Get immediate medical attention if swallowed.

SECTION 5: FIRE AND EXPLOSION DATA

5.1 Extinguishing Media: Use carbon dioxide, alcohol foam or dry chemical. Water may be ineffective but can be used to cool exposed containers and structures and disperse flammable vapors.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards: This product is highly flammable and forms explosive mixtures with air. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back. Closed containers may explode if exposed to extreme heat. **Combustion Products:** Combustion may produce carbon oxides.

5.3 Advice for Fire-Fighters:

Special Fire Fighting Procedures: Firefighters should wear full emergency equipment and an approved positive pressure self-contained breathing apparatus. Cool exposed intact containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures: Evacuate spill area and keep unprotected personnel away. Remove all sources of ignition. Ventilate area with explosion proof equipment. Wear appropriate protective clothing. See also: "Personal Protection "section 8.

6.2 Environmental Precautions: Avoid release into the environment. Report spill as required by local and federal regulations.

6.3 Methods and Material for Containment and Cleaning Up: Contain and collect using inert absorbent materials and place in appropriate containers for disposal. Use non-sparking tools and equipment. If spill has not ignited, use water spray to disperse the vapors and protect personnel attempting to stop leak. Ensure collected material is handled in accordance with section 13 "Disposal Considerations".

6.4 Reference to Other Sections: Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Avoid contact with the eyes, skin and clothing. Do not breathe vapors or mists. Wear protective clothing and equipment. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep away from heat, sparks, flames and all other sources of ignition. Do not permit smoking in use or storage areas.



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

7.2 Conditions for Safe Storage, Including any Incompatibilities Store in a cool, dry, well-ventilated area away from heat, direct sunlight and all sources of ignition. Store in accordance with regulations for the storage of flammable liquids. Store away from oxidizers and other incompatible materials. Protect from physical damage.

7.3 Specific end use(s): None specified

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters: Refer to country-specific legislation for specific requirements where not listed below.

Chemical Name	Exposure Limits
Toluene	20 ppm TWA ACGIH TLV
	50 ppm TWA, 100 ppm STEL EU IOEL
	20 ppm TWA, 100 ppm STEL Belgium OEL
	20 ppm TWA, 100 ppm STEL France OLE
	50 ppm TWA, 200 STEL Germany DFG
	50 ppm TWA Italy OEL
	50 ppm TWA, 100 ppm STEL Spain OEL
	50 ppm TWA, 100 ppm Sweden OEL
	50 ppm TWA, 100 ppm UK OEL
Isopropanol	200 ppm TWA, 400 STEL ACGIH TLV
	200 ppm TWA, 400 ppm STEL Belgium OEL
	400 ppm STE France OEL
	200 ppm TWA, 400 ppm Germany DFG
	200 ppm TWA, 400 ppm Spain OEL
	150 ppm TWA, 250 STEL Sweden OEL
	400 ppm TWA, 500 ppm STEL UK OEL

8.2 Exposure Controls:

Appropriate Engineering Controls: Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

Respiratory Protection: If the exposure limits are exceeded, an approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with applicable regulations and good Industrial Hygiene practice.

Skin Protection: Wear impervious gloves such as Teflon or Viton in accordance with EN 374 to avoid skin contact. Protective clothing if needed to avoid skin contact and contamination of personal clothing. Suitable washing should be available in the work area. Contaminated clothing should be removed and laundered before re-use.

Eye Protection: Wear chemical safety glasses or goggles in accordance with EN 166 to avoid eye contact.



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

Other Protective Equipment: None should be needed under normal use conditions. In Europe follow EN 13034.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

ColorBlueOdorSolvent odorOdor Threshold0,16 ppm (toluene)pHNo data availableFreezing Point-95°CBoiling Point110.6°CFlash Point4°CEvaporation RateNo data availableFlammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8Relative Density0.8636
Odor Threshold0,16 ppm (toluene)pHNo data availableFreezing Point-95°CBoiling Point110.6°CFlash Point4°CEvaporation RateNo data availableFlammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
pHNo data availableFreezing Point-95°CBoiling Point110.6°CFlash Point4°CEvaporation RateNo data availableFlammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Freezing Point-95°CBoiling Point110.6°CFlash Point4°CEvaporation RateNo data availableFlammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Boiling Point110.6°CFlash Point4°CEvaporation RateNo data availableFlammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Flash Point4°CEvaporation RateNo data availableFlammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Evaporation RateNo data availableFlammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Flammability (solid, gas)Not applicableUpper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Upper Explosion Limit7.1% (toluene)Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Lower Explosion Limit1.1% (toluene)Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Vapor Pressure3.8 kPa @ 25°CVapor Density (Air=1)2.8
Vapor Density (Air=1) 2.8
Relative Density 0.8636
Solubility Soluble in acetone, ethanol; insoluble in water
Partition Coefficient: n-octanol/water No data available
Auto Ignition Temperature 235-315°C
Decomposition Temperature No data available
Volatile Organic Compounds (VOC) No data available
Viscosity 0.59 cP @ 20°C

9.2 Other Information: None available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Not expected to be reactive

- 10.2 Chemical Stability: Stable
- **10.3 Possibility of Hazardous Reactions:** None known.
- **10.4 Conditions to Avoid:** Keep away from heat, sparks, flames and all other sources of ignition.
- **10.5 Incompatible Materials:** Avoid contact with strong oxidizing agents.

10.6 Hazardous Decomposition Products: Thermal decomposition may produce carbon oxides.



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eye Contact: Causes irritation with redness, tearing and stinging.

Skin Contact: Causes irritation with redness and drying of the skin. Prolonged contact may cause defatting of the skin and dermatitis.

Inhalation: Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, giddiness, intoxication, nausea, vomiting, disorientation, stupor and unconscious.

Ingestion: Ingestion may cause mucous membrane and gastrointestinal irritation and nervous system depression with symptoms of headache, dizziness, nausea, narcosis and unconsciousness. Aspiration into the lungs during ingestion or vomiting may cause serious lung damage which may be fatal.

Acute Toxicity Values:

Toluene:	Oral rat LD50 5580 mg/kg; Inhalation rat LC50 >20 mg/L; Dermal
	rabbit LD50 > 5000 mg/kg
Isopropanol:	Oral rat LD50 5045 mg/kg; Inhalation rat LC50 72.6 mg/L/4hr; Skin
	rabbit LD50 12800 mg/kg

Skin corrosion/irritation: Toluene causes skin irritation in rabbits.

Eye damage/irritation: Isopropanol causes eye irritation is rabbits.

Respiratory Irritation: No data available for the mixture. Components are not respiratory irritants.

Respiratory Sensitization: No data available for the mixture. Components are not respiratory sensitizers.

Skin Sensitization: None of the components have been found to cause sensitization in animals or humans.

Germ Cell Mutagenicity: No data available for mixture. This product is not expected to cause mutagenic activity.

Carcinogenicity: None of the components of this product present at 0.1% or greater are listed as carcinogens by IARC, NTP or the EU CLP.

Reproductive Toxicity: Toluene has been shown to cause developmental effects. In a developmental study with mice, maternal toxicity was evident in high-dose groups (392 ppm). No evidence of reproductive toxicity was noted. Pups from low dose group exhibited significant increase in body weights and increased incidence of skeletal abnormalities.



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

Specific Target Organ Toxicity:

Single Exposure: No data available

Repeat Exposure: An oral NOAEL of 625 mg/kg/day after 13 weeks of exposure has been observed in rats and mice. Neural cell death was observed in the rats in doses above the NOAEL. Lifetime inhalation exposure of rats caused degeneration of nasal epithelium and increased incidence of stomach ulcers with a NOAEC of 300 ppm and a LOAEC of 600 ppm. Other effects observed in laboratory animal inhalation studies include adaptive proliferation of the liver and long-lasting or irreversible effects on hearing. A NOAEC of 700 ppm for hearing loss in rats has been established. Long-term inhalation exposure has been shown to cause long lasting effects on brain neurochemistry in rats and neuron loss in hippocampus, however these effects cannot readily be interpreted in functional terms. Several investigations on humans suggest that toluene, after inhalation of high concentrations may cause long-term effects on the brain and central nervous system.

Aspiration Hazard: This product meets the criteria for an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION		
12.1 Toxicity	96 hr LC50 Coho salmon 5.5 mg/L (flow through), 40 day NOEC - 1.4	
Toluene:	mg/L; 48 hr EC50 Ceriodaphnia dubia 3.78 mg/L; 72 hr EC50	

mg/L; 48 hr EC50 Ceriodaphnia dubia 3.78 mg/L; 72 hr EC50 Chlamydomonas angulosa 134 mg/L Isopropanol: 96 hr LC50 Pimephales promelas 9640 mg/L; 48 hr EC50 Daphnia magna - 13,299 mg/L

12.2 Persistence and Degradability: Toluene and isopropanol are readily biodegradable.

12.3 Bioaccumulative Potential: Toluene has BCF less than 90. This suggests the bioconcentration in aquatic organisms is expected to be low to moderate.

12.4 Mobility in Soil: Toluene and isopropanol are highly mobile in soil.

12.5 Results of PBT and vPvB Assessment: Components do not meet the criteria of PBT or vPvB.

12.6 Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods: Dispose in accordance with all local and federal regulations.



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	UN1294	Toluene	3	PGII	
Canadian TDG	UN1294	Toluene	3	PGII	
EU ADR/RID	UN1294	Toluene	3	PGII	
IMDG	UN1294	Toluene	3	PGII	
IATA/ICAO	UN1294	Toluene	3	PGII	

Note: This product can be shipped as a limited quantity if the packaging complies.

14.6 Special Precautions for User: None known

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable – product is transported only in packaged form

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:

This SDS conforms to Regulation (EU) No. 1907/2006 and 2015/830. Label in accordance with Regulation (EC) No. 1272/2008 (CLP).

Chemical Inventories

Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory

SECTION 16: OTHER INFORMATION

Supersedes: Version 1.0 Date Updated: October 31, 2017 Revision Summary: 07/06/17: Initial REACH release 10/31/17: Section 14 Proper Shipping Name and update emergency telephone #

GHS Classification for Reference (See Sections 2 and 3):

Flam Liq 2 Flammable Liquid Category 2 Flam Liq 3 Flammable Liquid Category 3 Asp. Tox. 1 Aspiration Hazard Category 1 Skin Irrit 2 Skin Irritation Category 2 Eye Irrit 2 Eye Irritation Category 2



Released: 2017-07-06

Version: 1.1 Revision Date: 2017-10-31

Repr 2 Toxic to Reproduction Category 2 STOT SE 3 Specific Target Organ Toxicity Single Exposure Category 3 STOT RE 2 Specific Target Organ Toxicity Repeated Exposure Category 2

H226 Highly flammable liquid and vapor.

H226 Flammable Liquid and vapor.

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation.

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.