SAFETY DATA SHEET

Health & Safety Information

118 OXY Race Fuel
Product Part Number: 31801
MSDS Date: April 19, 2015

Section 1: Identification of the substance/mixture and of the company

1.1. Product identifier 118 OXY Race Fuel

1.2. Product Code 31801

1.3. Relevant identified uses of the substance or mixture and uses advised against
Intended use See Technical Data Sheet

1.4. Details of the supplier of the safety data sheet
Company name Torco Race Fuels
2527 W Dallas Ave.
Apache Junction, AZ 85120

Telephone No. (480) 288-9385

1.5. Emergency telephone number (800) 424-9300 24 hr.

Section 2: Hazards Identification

2.1. Classification of the substance or mixture
Not Classified

2.2. Label elements
Using the Toxicity Date listed in section 11 & 12 the product is labeled as follows: Not Classified

HMIS	**Health:**	1	**NFPA**	**Health:**	1
	Fire:	3		**Fire:**	3
	Physical Hazards:	0		**Reactivity:**	0
	PPE:	C		**Special Hazards:**	---

2.3 Other hazards
None

Section 3: Composition / Information on Ingredients

Ingredient/Chemical Designations	CAS Number	Weight %	EC No. 1272/2008 / GHS Classification
2,2,4 Trimethylpentane	540-84-1	20-80	Not Classified
Methyl Tert-Butyl Ether	1634-04-4	5-40	Not Classified

Tetra Ethyl Lead	78-00-2	.01-1	Not Classified
Toluene	108-88-3	1-20	Not Classified
Isopentane	78-78-4	1-20	Not Classified

*The full texts of the phrases are shown in Section 16.

Section 4: First Aid Measures

4.1. Description of first aid measures: General

In all cases of doubt, or when systems persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation

Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Skin

If on skin (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower. Continued contact can lead to defatting and drying of the skin. If skin irritation occurs: get medical advice/attention.

Eye

Rinse cautiously with water for several minutes. If eye irritation persists: get medical advice/attention.

Ingestion

If swallowed: immediately call a poison center/doctor/ physician. Do not induce vomiting. If ingestion has occurred within one hour, protect the airway and perform gastric lavage followed by the administration of activated charcoal. If greater than one hour since ingestion, protect the airway as needed and administer activated charcoal.

4.2. Most important symptoms and effects, both acute and delayed

Exposure Route	Health Effects	Symptoms of Exposure
Inhalation:	Effects on the Central Nervous system (CNS) may range from mild to severe effects such as respiratory depression.	From rapid breathing, fatigue, headache, light-headedness to more severe symptoms of dizziness and in extreme cases, respiratory arrest, convulsions or loss of consciousness.
Ingestion:	May be aspirated into lungs if swallowed, may result in pulmonary edema & chemical pneumonitis.	Signs and symptoms of aspiration may include coughing, difficulty breathing, “gurgling” lung sounds when breathing, coughing up phlegm (sputum) that is yellow or green in color or bad smelling, change in voice (hoarseness), skin turning bluish due to lack of oxygen.

Section 5: Fire Fighting Measures

5.1. Extinguishing media

Small Fire: dry chemical, CO_2, or fire-fighting foam. Large Fire: fire-fighting foam.

Fire-fighting foams which can be used are as follows:
Fluor protein (FP)- Aspirated, Film-Forming Fluor protein (FFFP)- Non aspirated or aspirated, Alcohol-Resistant FFFP- Non aspirated or aspirated, AFFF - Non-aspirated or aspirated, AR- AFFF - Non-aspirated or aspirated.

5.2. Special hazards arising from the substance or mixture

- The highly flammable vapors are heavier than air and may accumulate in low areas and /or spread along ground to distant ignition sources and flash back.
- Thermal decomposition produces acrid fumes.
- Vapor-air mixtures are explosive above the flash point.

5.3. Advice for fire fighters

- If tank, rail car or tank truck is involved in a fire, isolate for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions.
- Move container from fire area if you can do it without risk.
- Apply cooling water to sides of containers that are exposed to flames until well after fire is out.
- Stay away from ends of tanks.
- Stay away from tanks engulfed in fire. Closed containers exposed to heat may explode. (OSHA Class 1B Flammable Liquid)
- Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.
- Cool fire-exposed containers with flooding quantities of water applied from as far a distance as possible.

Section 6: Accidental Release Measures

See Guide Emergency Response Guidebook (Trans. Can/US Dept. of Trans).

6.1. Personal precautions, protective equipment and emergency procedures

Precautions:

- This highly flammable liquid must be kept from sparks; open flame, hot surfaces, and all sources of ignition and heat. The highly flammable vapors are heavier than air and may accumulate in low areas and /or spread along ground to distant ignition sources and flash back.

Protective Equipment:

Gloves: Recommended: neoprene and nitrile.
Not recommended for heavy use: rubber, PVC, latex.
Respirator: NIOSH Approved and equipped with organic-vapor filter;
Eye: Safety glasses with side shields, safety goggles or face shields.
Clothing: Flame-retardant e.g. Nomex, Proban.

Emergency Procedures:

- Shut off leak/release source, if it can be done safely.
- Remove all sources of ignition.
- Isolate hazard area.
- Evacuate area of all unnecessary personnel.
- Keep unnecessary and unprotected personnel from entering.
- Emergency personnel must wear appropriate personal protective equipment.

6.2. Environmental precautions

Prevent entry into sewers and waterways. Report spills as required to appropriate authorities in accordance with all applicable regulations. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

6.3. Methods and material for containment and cleaning up

- Use non-sparking tools and equipment.
- Use booms/pillows to prevent runoff into storm sewers and ditches that lead to waterways.
- Have foam or dry powder extinguisher on hand.
- Contain and recover liquid if it can be done safely: Collect spillage or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in metal container which can be grounded.
- Do not use combustible materials, such as sawdust, as absorbent.
- On large ground spills use firefighting foam to contain vapors. Recommended application rate is 0.1 USGPM/sq. ft. (4.1 L/Min / sq. ft.). This is the application rate for hydrocarbons as per NFPA 11
- If a leak or spill has not ignited, water spray may be used to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. Refer to Guide Emergency Response Guidebook (Transport Canada/US Dept. of Transportation).

7.1. Precautions For Safe Handling

Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing vapor. Use with adequate ventilation.

In Storage

Locations

- Store in a cool, dry, well-ventilated location, away from any area of fire-hazard.
- Outside or detached storage is preferred.
- Storage and use areas should be No Smoking areas.
- Ventilation system must be explosion-proof.

Containers

- Containers should be grounded.
- Drums must be equipped with self-closing valves, pressure vacuum bungs, and flame arresters.
- Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.
- Do not attempt to clean empty containers since residue is difficult to remove.
- Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

.

7.2. Conditions for safe storage, including any incompatibilities

Separate from incompatibles like oxidizers, e.g. bromates, chlorates, chromates, hypochlorite's, perchlorates, peroxides, nitrates, nitrites.

CAUTION!!! Do not use cutting or welding torches on drums, even when empty. Do not reuse container. Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full.

7.3. Specific end use(s)

There are no exposure scenarios, see details in section 1.

Section 8: Exposure Controls / Personal Protection

8.1. Control parameters

The following occupational exposure limits have been established.

CAS Number	Ingredient	Source	Value	Type
540-84-1	Isooctane (2,2,4-trimethylpentane)	OSHA	No Established Limit	
		ACGIH	300 ppm (8 hours)	TLV
		NIOSH	No Established Limit	
1634-04-4	Methyl Tert-Butyl Ether	ACGIH	50 ppm	TWA
78-00-2	Tetra Ethyl Lead	ACGIH	.1 mg/m3	TWA
		OSHA	.075 mg/m3	TWA
108-88-3	Toluene	ACGIH	20pmpm	TWA
		NIOSH	150 ppm, 560 mg/m3	STEL
		NIOSH	100 ppm, 375 mg/m3	REL
78-78-4	Isopentane	ACGIH	600ppm	TWA

DNEL/PNEC values
No Data Available

8.2. Exposure controls

No special requirements under ordinary conditions of use and with adequate ventilation.

Eye/face protection
Safety glasses with side shields, safety goggles or face shields.

Skin protection
Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 120 minutes or less when in frequent contact with the product. Due to variable exposure conditions the user must consider that the practical use of a chemical-protective glove in practice may be much shorter than the permeation time above. Manufacturer's directions for use, especially about the minimum thickness and the minimum breakthrough time, must be observed. This information does not replace suitability tests by the end user since glove protection varies depending on the conditions under which the product is used.

Other
Gloves, overalls, apron, boots, or other suitable protective garments should be worn to minimize contact based on the task being performed.

Respiratory protection
NIOSH-approved air-purifying respirator equipped with organic-vapor cartridges. NIOSH-approved SCBA with full face-piece if concentration is unknown.

Thermal hazards
No Data Available

Section 9: Physical & Chemical Properties

Appearance	**Thin Liquid**

Odor	**Hydrocarbon**
Color	**Red**
pH	**Not Determined**
Freezing Point	**Not Determined**
Initial Boiling Point	**38℃**
Flash Point	**-37℃**
Evaporation Rate (H20 = 1)	**3.9**
Flammability (Solid, Gas)	**Yes**
Upper/Lower Flammability or Explosive Limits	
Lower Explosive Limit	**Not Determined**
Upper Explosive Limit	**Not Determined**
Vapor Pressure (Pa)	**6psi @ 37.8℃**
Vapor Density	**3-4**
Relative Density	**Not Determined**
Solubility	**Partial (Water, Oil, Acetone)**
Partition coefficient n-octqanol/water (Log Kow)	**Not Determined**
Auto-Ignition Temperature	**Not Determined**
Decomposition Temperature	**Not Determined**
Viscosity (mPas)	**Not Determined**
Pour Point Temperature	**Not Determined**
Volatile Organic Compounds	**Nil**
SADT	**Not Determined**

Section 10: Stability & Reactivity

The data listed above are typical physical and chemical properties that do not constitute product specification.

10.1. Reactivity
No data available

10.2. Chemical stability
MMT is extremely photosensitive and decomposes rapidly when exposed to light. The half-life of MMT vapor in air is less than one minute when exposed to light. Photolytic action converts the organic compound to a mixture of non-hazardous manganese oxides and carbonates and organics derived from methylcyclopentadiene. MMT photolyses rapidly in water.

10.3. Possibility of hazardous reactions
May react with oxidizing agents.

10.4. Conditions to avoid
High temperature, sparks, open flames and exposure to light.

10.5. Incompatible materials
Keep away from strong oxidizing and reducing agents.

Section 11: Toxicological Information

Acute toxicity

The preparation has been assessed using the Acute Toxicity Data listed below, and classified for toxicological hazards accordingly. See section 2 for details.

Chemical Name	CAS Number	LD50	LC50
Toluene	108-88-3	Rat >5g/kg oral	N/A
Toluene	108-88-3	Rabbit 14.1 g/kg dermal	N/A

Section 12: Ecological Information

12.1 Toxicity
No Data Available

12.2. Persistence and degradability
There is no data available on the preparation itself.

12.3. Bioaccumulative potential
Not measured

12.4. Mobility in soil
No data available

12.5. Result of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available

Section 13: Disposal Consideration

13.1 Waste treatment methods

- Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial, and federal regulations.
- Waste isooctane can be incinerated, fuels blending, or recycled

Section 14: Transportation Information

Do not dispose of waste with normal garbage or to sewer systems

14.1. UN number UN1203

14.2. UN proper shipping name UN1203, Gasoline, 3, PGII

14.3.

14.4. Transport hazard classes

US DOT Label	Flammable 3
ADR/RID	Flammable 3
IMDG	Flammable 3
Sub Class	3 (Flammable Liquid)

14.5. Packing group II

14.6. Environmental hazards

ADR/RID	Environmentally Hazardous: No – Not regulated
IMDG	Marine Pollutant

14.7. Special precautions for user
No further information

Section 15: Regulatory Information

UNITED STATES

- HAP Hazardous Air Pollutant list
- TSCA Toxic Substances Control Act list
- CERCLA Comprehensive Environmental Response, Compensation, and Liability Act (Superfund List): 1000lb/454 kg final RQ
- CSWHS Clean Water Act Hazardous Substance list (Statutory Code 3)
- EPA HPV EPA sponsored High Production Volume chemical list

Regulations Hazard symbol(s)	
Risk phrases	R40- Limited evidence of a carcinogenic effect. R25- Toxic if swallowed. R65- Harmful: may cause lung damage if swallowed. R37- Irritating to respiratory system. R66- Repeated exposure may cause skin dryness or cracking. R67- Vapors may cause drowsiness and dizziness. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases	S23- Do not breathe vapor. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S46- If swallowed, seek medical advice immediately and show this container or label. S57- Use appropriate containment to avoid environmental contamination
Contains	Methyl cyclopentadienyl manganese tricarbonyl: Naphthalene: 2,2,4-trimethylpentane:Benzene

Section 16: Other Information

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

Health	1 Slightly Hazardous
Fire	3 Flashpoint <100°C F(38°C)
Reactivity	Stable

Disclaimer of expressed and implied warranties

The information presented in the Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. However, neither Torco Race Fuels nor its affiliates assumes any liability whatsoever for the accuracy or completeness of the information contained herein. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use

End of Safety Data Sheet