



# TURBO 108 OCTANE BOOST 32 FL.OZ.

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 09/16/2014

Version:

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Trade name : TURBO 108 OCTANE BOOST 32 FL.OZ.  
Product code : NA31

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Octane Improver

#### 1.3. Details of the supplier of the safety data sheet

Technical Chemical Company  
P.O. BOX 139  
Cleburne, Texas 76033  
T 817-645-6088

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Flam. Liq. 4 H227  
Acute Tox. 3 (Oral) H301  
Acute Tox. 4 (Inhalation:dust,mist) H332  
Eye Irrit. 2A H319  
Carc. 1B H350  
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

GHS08

GHS09

GHS02

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H227 - Combustible liquid  
H301 - Toxic if swallowed  
H332 - Harmful if inhaled  
H350 - May cause cancer  
H304 - May be fatal if swallowed and enters airways  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H336 - May cause drowsiness or dizziness  
H351 - Suspected of causing cancer  
H370 - Causes damage to organs

Precautionary statements (GHS-US) : P201 - Obtain special instructions  
P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking  
P261 - Avoid breathing dust, fume, gas, mist, vapor spray  
P264 - Wash affected areas thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves, protective clothing, eye protection, face protection  
P301+P310 - If swallowed: Immediately call a poison control center, doctor, physician,  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P308+P313 - If exposed or concerned: Get medical advice/attention  
P312 - Call a POISON CONTROL CENTER, doctor, if you feel unwell.  
P321 - Specific treatment: See section 4.1 on SDS  
P330 - Rinse mouth  
P370+P378 - In case of fire: See Section 5.1 Extinguishing Media  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

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P102 - Keep out of reach of children  
P260 - Do not breathe dust,fumes,gas,mist,vapor spray  
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting  
P370+P376 - In case of fire: Stop leak if safe to do so  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P403 - Store in a well-ventilated place

### 2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Distillates (Petroleum), Hydrotreated Light	(CAS No) 64742-47-8	93 - 95	Asp. Tox. 1, H304
Tricarbonyl (methylcyclopentadienyl) Manganese	(CAS No) 12108-13-3	3 - 5	Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310
Naphtha, Heavy Aromatic	(CAS No) 64742-94-5	<= 1	Carc. 1B, H350
1,2,4-Trimethylbenzene	(CAS No) 95-63-6	1 - 5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Naphthalene	(CAS No) 91-20-3	< 0.34	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-Methylnaphthalene	(CAS No) 91-57-6	< 0.26	Acute Tox. 4 (Oral), H302
1-Methylnaphthalene	(CAS No) 90-12-0	< 0.125	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302
Mesitylene	(CAS No) 108-67-8	<= 0.1	Flam. Liq. 3, H226 STOT SE 3, H335 Aquatic Chronic 2, H411
Manganese Cyclopentadienyl Tricarbonyl	(CAS No) 12079-65-1	<= 0.1	Acute Tox. 2 (Oral), H300

The exact percentage is a trade secret.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a poison center or doctor/physician.

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

Symptoms/injuries : May cause cancer.

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/injuries after skin contact : Harmful in contact with skin.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.  
Explosion hazard : May form flammable/explosive vapor-air mixture.

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

##### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.  
Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment : Dam up the solid spill. Plug the leak, cut off the supply.  
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Keep away from heat, sparks, open flames, hot surfaces. - No smoking.  
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, vapor spray. Obtain special instructions. Do not handle until all safety precautions have been read and understood.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations. Ground/bond container and receiving equipment.  
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Keep in fireproof place.  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

#### 7.3. Specific end use(s)

Follow Label Directions.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Distillates (Petroleum), Hydrotreated Light (64742-47-8)

USA ACGIH	ACGIH TWA (ppm)	200 ppm 8 Hours
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<b>Tricarbonyl (methylcyclopentadienyl) Manganese (12108-13-3)</b>		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
<b>1-Methylnaphthalene (90-12-0)</b>		
USA ACGIH	ACGIH TWA (ppm)	0.5 ppm
USA ACGIH	ACGIH STEL (ppm)	0.5 ppm
<b>2-Methylnaphthalene (91-57-6)</b>		
USA ACGIH	ACGIH TWA (ppm)	0.5 ppm
USA ACGIH	ACGIH STEL (ppm)	0.5 ppm
<b>Naphtha, Heavy Aromatic (64742-94-5)</b>		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup> 1-METHYLNAPHTHALENE
USA ACGIH	ACGIH TWA (ppm)	0.5 ppm 1-METHYLNAPHTHALENE
<b>1,2,4-Trimethylbenzene (95-63-6)</b>		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA ACGIH	ACGIH STEL (ppm)	25 ppm
<b>Manganese Cyclopentadienyl Tricarbonyl (12079-65-1)</b>		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
<b>Mesitylene (108-67-8)</b>		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA ACGIH	ACGIH STEL (ppm)	25 ppm

### 8.2. Exposure controls

Appropriate engineering controls

: Local exhaust ventilation, vent hoods.

Personal protective equipment

: Gloves. Protective goggles. Protective clothing. Respiratory protection of the dependent type. Avoid all unnecessary exposure.



Hand protection

: Wear protective gloves.

Eye protection

: Chemical goggles or safety glasses.

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: Wear appropriate mask.

Other information

: Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Light amber to dark amber.
Odor	: Mild . Hydrocarbon.
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 106 °C
Flash point	: 93 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 141 mm Hg @ 21 deg C
Relative vapor density at 20 °C	: 4.5 Air=1

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Relative density	: 0.86
Solubility	: Insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Combustible liquid. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Toxic if swallowed. Harmful if inhaled.

<b>Distillates (Petroleum), Hydrotreated Light (64742-47-8)</b>	
LD50 oral rat	> 5000 mg/kg body weight
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.28 mg/l/4h Based on lack of mortality and systemic effects
<b>Tricarbonyl (methylcyclopentadienyl) Manganese (12108-13-3)</b>	
LD50 oral rat	8 mg/kg (Rat)
LD50 dermal rat	665 mg/kg (Rat)
LD50 dermal rabbit	140 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.076 mg/l/4h (Rat)
<b>1-Methylnaphthalene (90-12-0)</b>	
LD50 oral rat	1840 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit; Literature study)
<b>2-Methylnaphthalene (91-57-6)</b>	
LD50 oral rat	1630 mg/kg (Rat)
<b>Naphthalene (91-20-3)</b>	
ATE CLP (oral)	500.000 mg/kg body weight
<b>Naphtha, Heavy Aromatic (64742-94-5)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
<b>1,2,4-Trimethylbenzene (95-63-6)</b>	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature; 6000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 3440 mg/kg (Rat; Read-across; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	18 mg/l/4h (Rat)

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<b>Manganese Cyclopentadienyl Tricarbonyl (12079-65-1)</b>	
LD50 oral rat	22 mg/kg (Rat)

<b>Mesitylene (108-67-8)</b>	
LD50 oral rat	6000 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Read-across)
LD50 dermal rat	> 2000 mg/kg bw/day (Rat; Read-across; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	24 mg/l/4h (Rat; Literature study)

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

<b>Naphtha, Heavy Aromatic (64742-94-5)</b>	
IARC group	2B
National Toxicity Program (NTP) Status	3

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if inhaled. Toxic if swallowed.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
Symptoms/injuries after skin contact	: Harmful in contact with skin.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	: Toxic to aquatic life with long lasting effects.
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<b>1-Methylnaphthalene (90-12-0)</b>	
LC50 fish 1	8.4 mg/l (48 h; Salmo fario; Yearlings)
EC50 Daphnia 1	1.2 mg/l (48 h; Daphnia magna)
LC50 fish 2	9 mg/l (96 h; Pimephales promelas)
Threshold limit algae 1	1.71 - 5.12,3 h; Chlorophyta
Threshold limit algae 2	1200 µg/l (14 days; Selenastrum capricornutum; Growth)

<b>2-Methylnaphthalene (91-57-6)</b>	
LC50 fish 1	8 mg/l (96 h; Oncorhynchus mykiss)
LC50 other aquatic organisms 1	1.3 mg/l (96 h; Cancer sp.; Larvae)
LC50 fish 2	2.5 mg/l (48 h; Pimephales promelas)
Threshold limit other aquatic organisms 1	1.3 mg/l (96 h; Cancer sp.; Larvae)

<b>Naphtha, Heavy Aromatic (64742-94-5)</b>	
LC50 fish 1	2.1 - 4.2 mg/l (96 h; Lepomis macrochirus; Fresh water)
EC50 Daphnia 1	0.95 mg/l (48 h; Daphnia magna)
LC50 fish 2	2.34 mg/l (96 h; Oncorhynchus mykiss)
Threshold limit algae 1	1 mg/l (72 h; Skeletonema costatum; Growth)

<b>1,2,4-Trimethylbenzene (95-63-6)</b>	
LC50 fish 1	7.72 mg/l (96 h; Pimephales promelas; Lethal)
LC50 fish 2	18 mg/l (48 h; Oryzias latipes)
Threshold limit algae 1	1 mg/l (72 h; Algae)
Threshold limit algae 2	2.356 mg/l (96 h; Algae)

<b>Mesitylene (108-67-8)</b>	
LC50 fish 1	8.6 mg/l (48 h; Oryzias latipes; Nominal concentration)
EC50 Daphnia 1	0.40 mg/l (504 h; Daphnia magna; Reproduction)
LC50 fish 2	13 mg/l (96 h; Carassius auratus)

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<b>Mesitylene (108-67-8)</b>	
TLM fish 1	13 mg/l (96 h; Carassius auratus)
Threshold limit algae 1	5 mg/l (Chlorophyta)
Threshold limit algae 2	25 mg/l (48 h; Scenedesmus subspicatus; Biomass)

### 12.2. Persistence and degradability

<b>TURBO 108 OCTANE BOOST 32 FL.OZ.</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.

<b>Distillates (Petroleum), Hydrotreated Light (64742-47-8)</b>	
Persistence and degradability	Not established.

<b>Tricarbonyl (methylcyclopentadienyl) Manganese (12108-13-3)</b>	
Persistence and degradability	Biodegradability in water: no data available.

<b>1-Methylnaphthalene (90-12-0)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water.

<b>2-Methylnaphthalene (91-57-6)</b>	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water.

<b>Naphthalene (91-20-3)</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.

<b>Naphtha, Heavy Aromatic (64742-94-5)</b>	
Persistence and degradability	Not readily biodegradable in water.

<b>1,2,4-Trimethylbenzene (95-63-6)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photodegradation in the air.
Chemical oxygen demand (COD)	0.44 g O <sub>2</sub> /g substance

<b>Manganese Cyclopentadienyl Tricarbonyl (12079-65-1)</b>	
Persistence and degradability	Biodegradability in water: no data available.

<b>Mesitylene (108-67-8)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorption to soil is possible. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.0957 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.319 g O <sub>2</sub> /g substance
ThOD	3.19 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.03 % ThOD

### 12.3. Bioaccumulative potential

<b>TURBO 108 OCTANE BOOST 32 FL.OZ.</b>	
Bioaccumulative potential	Not established.

<b>Distillates (Petroleum), Hydrotreated Light (64742-47-8)</b>	
Bioaccumulative potential	Not established.

<b>Tricarbonyl (methylcyclopentadienyl) Manganese (12108-13-3)</b>	
Bioaccumulative potential	No bioaccumulation data available.

<b>1-Methylnaphthalene (90-12-0)</b>	
BCF fish 1	20 (5 weeks; Oncorhynchus kisutch)
BCF fish 2	113-2000,1 - 2 weeks; Platichthys stellatus
Log Pow	3.87 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>2-Methylnaphthalene (91-57-6)</b>	
BCF fish 1	407 (624 h; Lepomis macrochirus; Muscles)
BCF fish 2	190 (840 h; Oncorhynchus kisutch; Muscles)
Log Pow	3.86 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

<b>Naphthalene (91-20-3)</b>	
Bioaccumulative potential	Not established.

<b>Naphtha, Heavy Aromatic (64742-94-5)</b>	
Log Pow	2.9 - 6.1

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<b>Naphtha, Heavy Aromatic (64742-94-5)</b>	
Bioaccumulative potential	Bioaccumable.

<b>1,2,4-Trimethylbenzene (95-63-6)</b>	
BCF fish 1	31 - 275 (8 weeks; Cyprinus carpio)
Log Pow	3.63 - 4.09 (Experimental value)
Bioaccumulative potential	Not established.

<b>Manganese Cyclopentadienyl Tricarbonyl (12079-65-1)</b>	
Log Pow	-0.57 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

<b>Mesitylene (108-67-8)</b>	
BCF fish 1	23 - 342 (Cyprinus carpio; Chronic)
BCF fish 2	161 (Pimephales promelas)
Log Pow	3.42 - 4.13 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

<b>1,2,4-Trimethylbenzene (95-63-6)</b>	
Surface tension	0.029 N/m
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

<b>Mesitylene (108-67-8)</b>	
Surface tension	0.028 N/m
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT (ground): NA1993, Combustible liquid, n.o.s. (Petroleum Distillates, Methylcyclopentadienyl Manganese Tricarbonyl), 3, III, Limited Quantity

ICAO/IATA (air): Not Regulated,

IMO/IMDG (water): Not Regulated,

Special Provisions: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Combustible liquid, n.o.s. (Petroleum Distillates, Methylcyclopentadienyl Manganese Tricarbonyl)

Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada, G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger



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DOT Special Provisions (49 CFR 172.102)	: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
Marine pollutant	: Yes

### 14.3. Additional information

Other information : No supplementary information available.

### Overland transport

No additional information available

### Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

### Air transport

DOT Quantity Limitations Passenger aircraft/rail : 60 L  
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L  
CFR 175.75)

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### TURBO 108 OCTANE BOOST 32 FL.OZ.

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on United States SARA Section 313

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Delayed (chronic) health hazard
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#### Distillates (Petroleum), Hydrotreated Light (64742-47-8)

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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#### Naphthalene (91-20-3)

SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard
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#### Naphtha, Heavy Aromatic (64742-94-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	14 % Naphthalene (CAS 91-20-3)

### 15.2. International regulations

#### CANADA

#### TURBO 108 OCTANE BOOST 32 FL.OZ.

WHMIS Classification	Class B Division 3 - Combustible Liquid
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#### Distillates (Petroleum), Hydrotreated Light (64742-47-8)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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#### Naphthalene (91-20-3)

WHMIS Classification	Class B Division 4 - Flammable Solid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
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### EU-Regulations

No additional information available

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### Classification according to Regulation (EC) No. 1272/2008 [CLP]

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

T; R23/25

Xn; R21

R52/53

Full text of R-phrases: see section 16

### 15.2.2. National regulations

#### Naphtha, Heavy Aromatic (64742-94-5)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Canadian NDSL (Non-Domestic Substances List)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

### 15.3. US State regulations

#### TURBO 108 OCTANE BOOST 32 FL.OZ.

State or local regulations	U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL) U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
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#### Naphthalene (91-20-3)

U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Massachusetts - Right To Know List

## SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral) Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H227	Combustible liquid
H300	Fatal if swallowed
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

# TURBO 108 OCTANE BOOST 32 FL.OZ.

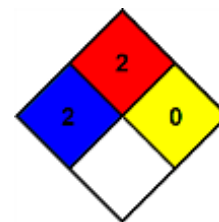
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H411

Toxic to aquatic life with long lasting effects

- NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
- NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 2 Moderate Hazard
- Physical : 0 Minimal Hazard
- Personal Protection : B

SDS US (GHS HazCom 2012) - TCC

*The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product*

*Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.*