



## **Safety Data Sheet**

**Compliant with Regulation (EU) No 830/2015  
Compliant with REACH Regulation (EU) No 878/2020  
Compliant with CLP Regulation (EU) No 1272/2008 As Amended**

**Date of Issue 12.04.2018  
Date of Revision 05.09.2022  
Version # 03**

### **Section 1 - Chemical Product and Company Identification**

#### **1.1 Product Identifier**

**Product Name: Octanium  
Synonym: Fuel Additive  
EC No. Mixture  
REACH Registration No.: Mixture  
CAS No. Mixture  
UFI No: XGU5-770P-CK6M-NMV1**

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

**Relevant identified uses: Fuel Additive**

**Uses advised against: HIS GASOLINE ADDITIVE SHOULD NOT BE USED IN VEHICLES WITH EMISSIONS CONTROL DEVICES.**

#### **1.3 Details of the supplier of the safety data sheet:**

VP Racing Fuels, Inc  
7124 Richter Road  
Elmendorf, TX. 78112  
210.635.7744  
E-mail: [Compliance@vpracingfuels.com](mailto:Compliance@vpracingfuels.com)

#### **1.3.1: Information on the representative of the member state of the safety data sheet:**

NBK, Millerick 3N, 3208 LA Spijkenisse, The Netherlands +31 (0) 181-650486

#### **1.4 Emergency Telephone Numbers:**

**CHEMTREC 800-424-9300**

**International Emergency Telephone Number: +1-703-527-3887**

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**1.4 Emergency Telephone Continued:**

County	Greeting Language	City	Local number	Toll-Free number
Austria	Austro- Bavarian / German	Vienna	43-13649237	
Belgium	French, Flemish, and German	Brussels	32-28083237	
Bulgaria	Bulgarian	Plovdiv	359-32570104	
Croatia	Croatian	Zagreb	385-17776920	
Czech Republic	Czech	Prague	420-228880039	
Denmark	Danish	National	45-69918573	
Estonia	Estonian	National	372-6681294	
Finland	Finnish	Helsinki	358-942419014	
France	French	National	33-975181407	
Germany	German	Frankfurt	49-696435084090	800-181-7059
Greece	Greek	Athens	30-2111768478	
Hungary	Hungarian	Budapest	36-18088425	
Iceland	Icelandic	Reykjavik	354 539 0655	
Italy	Italian	Milan	39-0245557031	
Latvia	Latvian/Lettish and Possibly Russian	Riga	371-66165504	
Lithuania	Lithuanian	Vilnius	370-52140238	
Luxembourg	Luxembourgish, French, and German	National	352-20202416	
Macedonia	Macedonian	Skopje	389 2 551 7456	
Netherlands	Dutch	National	31-858880596	
Nigeria	Hausa	Lagos	234 1 227 8883	
Poland	Polish	Warsaw	48-223988029	
Portugal	Portuguese	National	351-308801773	
Romania	Romanian	National	40-37-6300026	
Slovakia	Slovak	Bratislava	421-233057972	
Slovenia	Slovene/Slovenian	Ljubljana	38-618888016	900-868538
Spain	European Spanish	Barcelona	34-931768545	
Sweden	Swedish	Stockholm	46-852503403	
Switzerland	German and French, and Italian	Zurich	41-435082011	
Ukraine	Ukrainian	Mobile number	380-947101374	

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**1.5 Emergency Poison Control Centers Phone Numbers:**

Country	Organization	Address	Phone/ Fax Number
Austria	Umweltbundesamt GmbH Abteilung Chemikalien	Spittelauer Lände 5 1090 Wien	Tel:+43 1 31304 5620
Belgium	Centre anti poisons / Antigif Centrum	Hôpital Militaire Reine Astrid Rue Bruyn 1, 1120 Bruxelles	Tel:+32 02 264 96 36
Bulgaria	National Toxicology Center	Hospital for Active Medical Treatment and Emergency Medicine "N.I.Pi rogov" Sofia - 1000	Tel/ fax: +359 2 9154 409
Croatia	Croatian Institute for Toxicology and Antidoping	10000 Zagreb Borongajska Cesta 83 g	Fax: + 385 01 46 41 368
Cyprus	Department of Labour Inspection Ministry of Labour Welfare and Social Insurance	12, Apelli street, Nicosia 1493, Cyprus C/o Dr Maria Paleomilitou	Tel: +35722405611
Czech Republic	Department of Chemicals and Biocides Ministry of Health	Palackého nám stí 4 CZ - 128 01 Prague 2	None shown
Denmark	The Product Registry, Danish Working Environment Authority (only mixtures for professional use)	Postboks 1228 0900 København C	Tel: +45 70 12 12 88
Denmark	The Danish Environmental Protection Agency	The Danish Environmental Protection Agency	Tel: +45 72 54 40 00
Estonia	Poisoning Information Centre Health Board	Gonsiori 29, 15027 Tallinn, Estonia	Tel: +372 62 69 379
Finland	Chemical Products Register, Finnish Safety and Chemicals Agency (Tukes)	Kalevantie 2, FI-33100 Tampere	None shown

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**1.5 Emergency Poison Control Centers Phone Numbers Continued:**

Country	Organization	Address	Phone/ Fax Number
France	Institut national de recherche et de sécurité (INRS)	65 boulevard Richard Lenoir 75011 PARIS	Tel:+33 1 40 44 30 00
France	Centre antipoison et de toxicovigilance de Nancy	Hôpital Central 29 avenue du Maréchal de Lattre de Tassigny 54035 Nancy Cedex	Tel :+33 3 83 22 50 50
Germany	Federal Institute for Risk Assessment (BfR) Unit: Poison and Product Documentation Centre	Max-Dohrn-Str. 8-10 10589 Berlin	Tel.+49 30-18412-3460 Fax+49 30-18412-3929
Greece	General Chemical State Laboratory, Directorate of Environment, section B	An. Tsoha 16, GR-115 21 Athens	Tel:+30 210 6479409, Fax:+30 210 6466917
Hungary	National Institute of Chemical Safety (HU: Országos Kémiai Biztonsági Intézet, OKBI)	Nagyvárad tér 2 BUDAPEST H-1096	None Shown
Ireland	Beaumont Hospital - National Poisons Information Centre	Beaumont Road, Dublin 9,	Tel:+353 1 8092566
Italy	Istituto Superiore di Sanità, National Center for Chemicals	Viale Regina Elena, 299 I-00161 ROMA	Tel:+39 0649906140 and +39 0649902064
Latvia	Latvian Environment, Geology and Meteorology Centre (LEGMC)	Maskavas Street 165 Riga, LV-1019	Tel:+371 67032600
Lithuania	Environmental Protection Agency	Juozapavi iaus st. 9, LT-09311 Vilnius, Lithuania	Tel:+ 370 70662008 Fax:+ 370 70662000

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Luxembourg	Ministère de la Santé	Allée Marconi, L-2120 Luxembourg	Tel:+ 352 24785551
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Country	Organization	Address	Phone/ Fax Number
Malta	None Shown	None Shown	None Shown
Netherlands	National Poisons Information Center University Medical Center Utrecht	PO Box 85500, 3508 GA Utrecht	Tel:+31 88 75 585 61
Poland	Department for Dangerous Substances and Preparations/ /Bureau for Chemical Substances and Preparations	Dowborczykow Street 30/34 90-019 Lodz	Phone: +48 42 25 38 400 Fax: +48 42 25 38 444
Portugal	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica	Rua Almirante Barroso, n.º 36 1000-013 Lisboa - Portugal	Tel:+ 351 213 303 271
Romania	National Institute for Public Health	Dr. A. Leonte, 1-3, sector 5, Bucuresti	Tel:+40 21 318 36 06
Slovakia	National toxicological information center	University Hospital Bratislava Department of Occupational Medicine and Toxicology Limbova 5, 833 05 Bratislava	Tel:+ 421 2 5465 2307
Slovenia	Chemicals Office (CORS), Ministry of Health	Ajdovš ina 4, SI - 1000 Ljubljana	Tel:+386 1 400 60 51 Fax:+386 1 400 62 66
Spain	Instituto Nacional de Toxicología y Ciencias Forenses	Calle José Echegaray, 4 28032 Las Rozas de Madrid, Madrid	Tel:+34 917689800
Sweden	The Swedish Poison Information Center at the Medical Product Agency	Giftinformationscentralen, 171 76 STOCKHOLM	Tel:+46 8 331231

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United Kingdom	National Poisons Information Service (NPIS)	None shown	None shown
Norway	Norwegian Environment Agency	Postboks 5672 Sluppen, 7485 Trondheim	Tel: +47 73 58 05 00

**Section 2 - Hazards Identification**

**2.1 Classification of the mixture**

**2.1.1 Classification according to Regulation (EU) No 1272/2008 (CLP)**

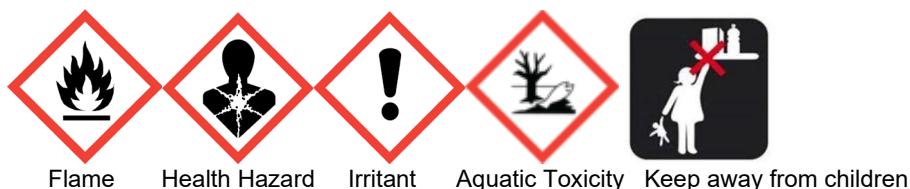
<b>Highly Flammable liquid/vapor</b>	<b>Category 2 H225</b>
<b>Specific Target Organs toxicity single exposure</b>	<b>Category 3 H336</b>
<b>Specific Target Organs repeated exposure</b>	<b>Category 2 H373</b>
<b>Skin Irritation</b>	<b>Category 2 H315</b>
<b>Acute Toxicity Oral</b>	<b>Category 4 H302</b>
<b>Acute Toxicity Inhalation</b>	<b>Category 4 H332</b>
<b>Reproductive Toxicity</b>	<b>Category 2 H361</b>
<b>Aspiration Hazard</b>	<b>Category 1 H304</b>
<b>Toxic to Aquatic Life Long-Lasting Effects</b>	<b>Category 2 H411</b>

**2.1.2 Additional Information: For the full text of the H and P codes and EU hazard statement: see section 16**

**2.2 Label elements**

**Labeling according to Regulation (EU) No 1272/2008 (CLP)**

**Hazard Pictograms**



**Signal Word: Danger**

**Hazard statements**

- H225: Highly flammable liquid and vapor.**
- H303: Harmful if swallowed**
- H304: May be fatal if swallowed and enters airways.**
- H315: Causes skin irritation.**
- H336: May cause drowsiness or dizziness.**
- H332: Harmful if inhaled.**
- H361: Suspected of damaging fertility or the unborn child.**

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

H400: Very Toxic to aquatic life.

H410: Very Toxic to aquatic life with long-lasting effects.

H411: Toxic to aquatic life with long-lasting effects.

### Precautionary statements:

P102: Keep out of reach of children.

P203: Obtain special instructions before use. **READ SDS BEFORE USE**

P210: Keep away from sparks, open flames, and other ignition sources- No smoking.

P233: Keep the container tightly closed.

P240: Ground or bond container and receiving equipment.

P241: Use explosion-proof equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260: Do not breathe vapor and mist.

P264: Wash hands 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, clothing, and eye protection.

### Supplemental hazard information

P301 +P310+ P331: IF SWALLOWED, Immediately call a poison center or doctor. **DO NOT** induce vomiting.

P303+P361+P353: IF ON SKIN, Take off immediately all contaminated clothing. Rinse skin with water.

P304+340: IF INHALED. Remove to fresh air and keep comfortable for breathing.

P305+P351: IF IN EYES, Rinse cautiously with water for at least 15 minutes.

P308+P313: If exposed or concerned, get medical attention.

P313+P332: If skin irritation persists, get medical attention.

H314: Get medical attention if you feel unwell.

P330: Rinse mouth.

P362+P364: IF ON CLOTHING, take off contaminated clothing and wash it before reuse.

P391: Collect spillage.

### 2.3 Other hazards

P370+P378: In case of fire, use foam, carbon dioxide, or dry chemical to extinguish the fire

P403+P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

P501: Dispose of content and container following local, regional, national, or international regulations.

### 2.4 EU Hazard Statements:

EUH066: Repeated exposure may cause skin dryness or cracking.

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**Section 3- Composition / Information on Ingredients**

**3.1 Substance Mixture**

CAS No.	EC No.	Index No.	REACH Registration No.	% Range	Name	Classification According to Regulation 1278/208 CPL	SCL M-Factor ATE:
540-84-1	208-759-1	601-009-00-8	01-2119457965-22-XXXX	72-80	Isooctane	Flam. Liq. 2 H225, Asp. Tox. 1, H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Acute 1 H400, Aquatic Chronic 1 H410	None
108-88-3	203-625-9	601-021-00-3	01-2119471310-51-XXXX	14-21	Toluene	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Repr. 2 H361, STOT RE 2 H373	None
12108-13-3	235-166-5	None	Below tonnage requirements	1-5	Methylcyclopentadienyl manganese tricarbonyl	Acute Tox. 3 H301, Acute Tox. 2 H310, Acute Tox. 1 H330, Aquatic Chronic 1 H410, Aquatic Acute 1 H400	M(Chronic)=1
102-71-6	203-049-8	None	Below tonnage requirements	1-5	Triethanolamine	Not classified	None
78-00-2	201-075-4	None	Below tonnage requirements	0.1-.0.3	Tetraethyl lead	Acute Tox. 1 H300, Acute Tox. 1 H310, Acute Tox. 2 H330, Repr. 1A H360, STOT RE 2 H373, Aquatic Acute 1 H400	None

SLC: The specific concentration limit

M-Factor: The multiplication factor

ATE: The acute toxicity estimate

**3.2 Trade Secret Provision and Chemical Concentration Disclosure:** Following GHS Regulations, we have withheld specific percentages of the mixture's chemicals. The chemical concentrations have been disclosed as a range and apply to the hazards identified in this Safety Data Sheet.



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**Section 4 - First Aid Measures**

**4.1 Description of first aid measures**

**4.1.1 General information:** Ensure that medical personnel knows the material(s) involved and take precautions to protect themselves.

**4.1.2 Following Inhalation:** 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.

**4.1.3 Following Skin contact:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**4.1.4 Following eye contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**4.1.5 Following ingestion:** Do NOT induce vomiting. Get medical aid immediately.

**4.2 Most important symptoms and effects, both acute and delayed:**

**4.2.1:** Contact with the eyes can cause serious irritation. Symptoms may include discomfort or pain and redness. Severe overexposure can result in swelling of the conjunctiva along with tissue damage.

**4.2.2:** Prolonged and repeated liquid contact with the skin can cause defatting and drying and lead to irritation and dermatitis.

**4.2.3:** Liquid ingestion can cause inebriation, headache, gastrointestinal pain, nausea, and vomiting leading to central nervous system depression. Aspiration of liquid into the lungs must be avoided as even small quantities can produce chemical pneumonia, pulmonary edema, and even death.

**4.2.4:** Prolonged breathing of high vapor concentrations can produce headaches, dizziness, nausea, and impaired vision. Excessive overexposure can cause central nervous system depression, loss of consciousness, liver damage, and death resulting from respiratory failure.

**4.3 Indication of any immediate medical attention and special treatment needed:** The severity of outcome following exposure may be related to the time between the exposure and treatment rather than the amount of the exposure. Therefore, there is a need for rapid treatment of any exposure.

Note to Physicians: If you determine that a medical emergency exists. The specific chemical identity is necessary for emergency or first-aid treatment and will be immediately disclosed the specific chemical identity. Call CHEMTREC 800-424-9300 or +1-703-527-3887. We will require a written statement of need and confidentiality agreement as soon as circumstances permit. In non-emergency situations, we will, upon written request, disclose a specific chemical identity.

**Section 5 - Fire-Fighting Measures**

**General fire hazards:** Highly flammable liquid and vapor.

**5.1 Extinguishing media:**

**Suitable extinguishing media:** Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

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**Unsuitable extinguishing media:** Do not use a water jet as an extinguisher, as this will spread the fire.

**5.2 Special hazards arising from the substance or mixture:** Vapors may form explosive mixtures with air. Vapors may travel a considerable distance to a source of ignition and flashback. During a fire, gases hazardous to health may be formed.

**5.3 Advice for firefighters:** Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

**Additional information:** Do not release runoff from fire to sewers or waterways.

## Section 6 - Accidental Release Measures

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

**6.1.1 For non-emergency personnel:** Keep unnecessary personnel away. Keep people away from and upwind of spills and leaks. Take precautionary measures against static discharge. Eliminate all ignition sources. No smoking, flames, sparks, or flames in the immediate area. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

**6.1.2 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.

**6.2 Environmental precautions:** Avoid direct contact with the material. Stop leak if without risk. Move containers from the spill area. Prevent entry into sewers or waterways.

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

**6.3.1 For containment:** Eliminate all ignition sources (no smoking, flares, sparks, or flames in the immediate area). Keep combustibles such as wood, paper, and oil) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. The product is immiscible with water and will spread on the water surface. Prevent entry into waterways, sewers, basements, or confined areas.

#### 6.3.2 For clean up:

**6.3.2.1 Small spill;** Absorb with earth, sand, or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

**6.3.2.2 Large spill:** Stop the material flow if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand, or earth to soak up the product and place it into a container for later disposal. Following product recovery, flush the area with water.

**6.3.3 Other information:** Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers.

**6.4 Reference to other sections:** See section 8 of the SDS for personal protection. For waste disposal, see section 13 of the SDS.

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**Section 7 - Handling and Storage**

**7.1 Precautions for safe handling:** Avoid breathing vapors. Avoid contact with eyes, skin, and clothing. Avoid contact with eyes. Observe good industrial hygiene practices. Provide adequate ventilation. Take precautionary measures against static discharge. Eliminate all ignition sources. No smoking, flames, sparks, or flames in the immediate area., Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse. Avoid release to the environment. Observe good industrial hygiene practices.

**7.1.1 Bonding and grounding plastic containers:**

When bonding and grounding two non-conductive containers, a static electrical charge can be generated when two dissimilar materials (Metal and Plastic) pass quickly by one another. Their many factors affect the size and strength of the static charge or potential that may develop, such as speed of transfer, humidity, container size, and others. Therefore, the transfer of flammable liquids between plastic or other non-conductive containers should be under the following conditions:

1. A non-conductive container must be equipped with an approved metallic suction pump and draw tube for taking liquid from the top of a plastic container. The pump must be electrically grounded.
2. The non-conductive container must be equipped with a metallic, self-closing faucet that can be grounded electrically.

Additionally, flammable liquids between small containers may not require special bonding and grounding techniques. NFPA 77-1993 states that glass containers or other non-conductive materials of five gallons or less capacity are usually filled without special precautions." However, NFPA 77-1993 suggests that special techniques should handle flammable liquids in plastic containers with 5 to 60 gallons for larger containers would consider compliance with NFPA 77-1993 regarding the bonding and grounding of plastic containers holding flammable liquids.).

**7.2 Conditions for safe storage, including any incompatibilities:** Store locked up in a cool, dry, well-ventilated place out of direct sunlight. Keep away from heat, sparks, and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a tightly-closed container. Store in a. Store away from incompatible materials (see section 10).

**7.3 Specific end use(s):** Gasoline Fuel Additive **NOT BE USED IN VEHICLES WITH EMISSIONS CONTROL DEVICES.**

**Section 8 - Exposure Controls / Personal Protection**

**8.1 Exposure limit values**

Substance	
	Isooctane

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<b>CAS#</b>			540-84-1	
<b>Limit value eight hours</b>			<b>Limit value short term 15 minutes average value</b>	
Finland	300 ppm	1400mg/m3	380 ppm	1800mg/m3
Germany (DFG)	100 ppm	470 mg/m3	200 ppm	940 mg/m3
Switzerland	100 ppm	470 mg/m3	200 ppm	940 mg/m3

<b>Substance</b>			Toluene	
<b>CAS #</b>			108-88-3	
<b>Limit value eight hours</b>			<b>Limit value short term 15 minutes average value</b>	
European Union	50 ppm	192mg/m3	100 ppm	384 mg/m3
Austria	50 ppm	190 mg/m3	100 ppm	380 mg/m3
Belgium	20 ppm	77 mg/m3	100 ppm	384 mg/m3
Denmark	25 ppm	94 mg/m3	50 ppm	188 mg/m3
Finland	20 ppm	76.8 mg/m3	100 ppm	380 mg/m3
France	20 ppm	76.8 mg/m3	100 ppm	384 mg/m3
Germany (AGS)	100 ppm	470 mg/m3	200 ppm	940 mg/m3
Germany (DFG)	100 ppm	470 mg/m3	200 ppm	940 mg/m3
Hungary	None	190 mg/m3	None	380 mg/m3
Poland	None	100 mg/m3	None	200 mg/m3
Romania	50 ppm	188 mg/m3	None	None
Spain	50 ppm	192 mg/m3	100 ppm	384 mg/m3
Sweden	50 ppm	192 mg/m3	100 ppm	384 mg/m3
Switzerland	50 ppm	190 mg/m3	200 ppm	384 mg/m3
The Netherland	None	150 mg/m3	None	384 mg/m3

<b>Substance</b>			Methylcyclopentadienyl manganese tricarbonyl	
<b>CAS #</b>			12108-13-3	
<b>Limit value eight hours</b>			<b>Limit value short term 15 minutes average value</b>	
Austria	None	0.2 mg/m3	None	0.4 mg/m3
Belgium	None	0.2 mg/m3	None	None
Denmark	0.1 ppm	0.05 mg/m3	0.2 mg/m3	0.4 mg/m3
Finland	0.2 ppm	None	None	0.6 mg/m3
France	0.2 ppm	None	None	None
Latvia	None	0.1 mg/m3	None	None
Spain	0.2 ppm	None	None	None
Switzerland	0.1 ppm	0.2 mg/m3	None	None

<b>Substance</b>			Triethanolamine	
<b>CAS #</b>			102-71-6	
<b>Limit value eight hours</b>			<b>Limit value short term 15 minutes average value</b>	
Austria	None	5 mg/m3	0.16 ppm	10 mg/m3
Belgium	None	5 mg/m3	None	None
Denmark	0.5 ppm	3.1 mg/m3	1 ppm	6.2 mg/m3
Finland	None	5 mg/m3	None	None
Germany (AGS)	None	1 mg/m3	None	1 mg/m3
Germany (DFG)	None	1 mg/m3	None	1 mg/m3
Spain	None	5 mg/m3	None	None
Sweden	0.8 ppm	5 mg/m3	1.6 ppm	10 mg/m3
Switzerland	None	5 mg/m3	None	0.1 mg/m3

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Substance			Tetraethyl lead	
CAS #			78-00-2	
Limit value eight hours			Limit value short term 15 minutes average value	
Austria	None	0.1 mg/m <sup>3</sup>	None	None
Belgium	None	0.1 mg/m <sup>3</sup>	None	None
Denmark	0.007 ppm	0.05 mg/m <sup>3</sup>	0.014 ppm	0.10 mg/m <sup>3</sup>
Finland	None	0.075 mg/m <sup>3</sup>	None	0.23mg/m <sup>3</sup>
France	None	0.1 mg/m <sup>3</sup>	None	None
Germany (AGS)	None	0.05 mg/m <sup>3</sup>	None	0.1 mg/m <sup>3</sup>
Germany (DFG)	None	0.05 mg/m <sup>3</sup>	None	0.1 mg/m <sup>3</sup>
Hungary	None	0.05 mg/m <sup>3</sup>	None	0.2 mg/m <sup>3</sup>
Latvia	None	0.005 mg/m <sup>3</sup>	None	None
Poland	None	0.05 mg/m <sup>3</sup>	None	0.1 mg/m <sup>3</sup>
Romania	None	0.01 mg/m <sup>3</sup>	None	0.03 mg/m <sup>3</sup>
Spain	None	0.01 mg/m <sup>3</sup>	None	None
Sweden	None	0.05 mg/m <sup>3</sup>	None	0.2 mg/m <sup>3</sup>
Switzerland	None	0.05 mg/m <sup>3</sup>	None	0.1 mg/m <sup>3</sup>

## 8.2. Exposure control

**8.2.1 Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below TLV/PELs Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**8.2.2 Contaminated Equipment:** Separate contaminated work clothes from street clothes and launder them before reuse. Remove this material from your shoes and clean personal protective equipment.

### 8.2.3 Individual protection measures

**8.2.3.1 Respiratory protection:** Where risk assessment shows that air-purifying respirators are appropriate, use a full-face respirator with a multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied-air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**8.2.3.2 Hand protection:** Handle with gloves. Gloves must be inspected before use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use. Select gloves tested to the **ANSI/ISEA 105-2011** or European EN374 Standard.

Full contact: Viton

Splash contact: Viton

Registered trademark of The Chemours Company FC, LLC

**8.2.3.3 Eye protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**8.2.3.4 Skin and body protection:** Full bodysuit and boots are recommended when handling large volumes or emergencies. Flame retardant protective clothing is recommended.

**8.3.3.5 Thermal Hazards:** Wear appropriate thermal protective clothing when necessary.

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**8.3.3.6 Hygiene measures**

Avoid contact with eyes. Avoid contact with skin. Wash hands immediately after handling the product. Handle following good industrial hygiene and safety practices.

**8.3.3.7 Environmental exposure controls:** Contain spills, prevent releases, and observe national regulations on emissions.

**Section 9 - Physical and Chemical Properties**

**9.1**

**Physical State:** Liquid

**Appearance:** Green

**Odor:** Aromatic Petroleum Odor

**Vapor Pressure:** Not Available

**Vapor Density (Air=1):** >1

**Specific Gravity (H<sub>2</sub>O=1):** 0.76

**Relative Density:** Not Available

**Odor Threshold:** Not Available

**Flammability (solid, gas):** Not applicable. **Evaporation rate:** Not Available

**Partition coefficient octanol/water:** Not Available

**Water Solubility:** Insoluble

**Melting point/freezing point:** Not Available

**Flash Point:** -5.5°C c.c.

**Boiling Point / Range:** Not Available

**Lower Explosive Limits (vol % in air):** 1%

**Upper Explosive Limits (vol % in air):** 6%

**Viscosity:** <20.5mm<sup>2</sup>/s @ 40°C

**Auto ignition Temperature:** Not Available

**Decomposition temperature:** Not Available

**pH:** None

**9.2 Other information:** No data available.

**Section 10 - Stability and Reactivity**

**10.1 Reactivity:** The product is reactive with incompatible materials (please refer to section 10.5).

**10.2 Chemical stability:** Stable under ordinary conditions of use and storage.

**10.3 Possibility of hazardous reactions:** Hazardous polymerization has not been reported.

**10.4 Conditions to avoid:** Heat, flames, and sparks. Ignition sources. Contact with incompatible materials. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other ignition sources; they may explode and cause injury or death.

**10.5 Incompatible materials:** Strong oxidizing agents.

**10.6 Hazardous decomposition products:** Combustion produces carbon monoxide and carbon dioxide.

**Section 11- Toxicological Information**

**11.1 Information on toxicological effects**

**Acute toxicity**

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Acute Toxicity Estimate for this mixture (ATE)

ATE (Oral): 840.3 mg/kg

ATE (Dermal): 2564 mg/kg

ATE (Inhalation vapor/mist): 10.2 mg/l vapor

**11.1.1** OECD Guideline Test results found in the European Chemical Agency Database show that components of this product cause Toxic Oral Toxicity.

**11.1.2** OECD Guideline Test results found in the European Chemical Agency Database show no product components to cause Harmful Dermal Toxicity.

**11.1.3** OECD Guideline Test results found in the European Chemical Agency Database show this product's components cause Harmful Inhalation Toxicity.

**11.2 Route of Entry:** Inhalation, Ingestion, Absorption, Skin, and Eye Contact.

**11.3 Aspiration Hazard:** European Chemical Agency Data Base shows that components Isooctane and Toluene in this product may be fatal if swallowed and enters airways.

**11.4 Mutagenicity:** OECD Guideline Test results found in the European Chemical Agency Database show no product components cause genetic defects.

**11.5 Skin Corrosion/Irritation:** OECD Guideline Test results found in the European Chemical Agency Database show Isooctane and Toluene of this product to cause skin irritation. Repeated exposure may cause skin dryness or cracking.

**11.6 Serious Eye Damage/Irritation:** OECD Guideline Test results found in the European Chemical Agency Database show that no product components cause serious eye irritation. However, direct contact with the eyes may cause temporary irritation.

**11.7 Reproductive toxicity:** OECD Guideline Test results found in the European Chemical Agency Database show Toluene and Tetraethyl lead, which are components of this product to damage fertility or the unborn child. Note that lead's adverse effects on human reproduction, embryonic and fetal development, and postnatal development have been reported.

**11.8 Skin Sensitization:** OECD Guideline Tests results found in the European Chemical Agency Database show no product components cause skin sensitivity.

**11.9 Respiratory Sensitization:** OECD Guideline Test results in the European Chemical Agency Database show no product components cause respiratory sensitivity.

**11.10 Specific Target Organ Toxicity (Single Exposure):** European Chemical Agency Database shows that Isooctane, Toluene, and components of this product damage the central nervous system (CNS).

**11.11 Specific Target Organ Toxicity (Repeated Exposure):** The European Chemical Agency Database shows Toluene and Tetraethyl lead, which may damage organs due to repeat exposure. It may contain chemicals that may cause damage to the following organs: kidneys, lungs, liver, upper respiratory tract, skin, eyes, and central nervous system (CNS).

Note: Tetraethyl lead excessive exposure can affect the blood, nervous, and digestive systems.

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**11.12 Signs and Symptoms:** Effects due to exposure may include: Headache, Dizziness, Drowsiness, Coma, and Seizures. Symptoms may be delayed. Additional overexposure symptoms include joint and muscle pain, weakness of the extensor muscles, frequent hand and wrist, abdominal pain, diarrhea, constipation, nausea, vomiting, a blue line on the gums, insomnia, and metallic taste. High body levels of Tetraethyl lead produce increased cerebrospinal pressure, brain damage, and stupor leading to death.

**11.13 Carcinogenicity:** OECD Guideline Test results found in the European Chemical Agency Database show no product components cause cancer.

**Section 12 - Ecological Information**

**12.1**

Product Name	Results	Species	Exposure
2, 2, 4-Trimethylpentane	LC50 0.11 mg/l	Fish	96 hours
2, 2, 4-Trimethylpentane	EC50 0.4 mg/l	Daphnia	48 hours
Toluene	LC50 7.63 mg/l	Fish	96 hours
Toluene	EC50 8.00 mg/l	Daphnia	48 hours
Toluene	EC50 245 mg/l	Algae	24 hours
Methylcyclopentadienyl manganese tricarbonyl	LC50 0.21 mg/l	Fish	96 hours
Methylcyclopentadienyl manganese tricarbonyl	EC50 0.83 mg/l	Daphnia	48 hours
Triethanolamine	LC50 1000 mg/l	Fish	96 hours
Triethanolamine	EC50 196 mg/l	Algae	24 hours
Tetraethyl lead	LC50 0.23 mg/l	Fish	96 hours

**12.1.1 Toxicity** OECD Guideline Test results found in the European Chemical Agency Database show 2, 2, 4-Trimethylpentane, Methylcyclopentadienyl manganese tricarbonyl, and Tetraethyl lead, which are components of this product toxicity to aquatic life.

**12.2 Mobility in soil:** Inconclusive technical data.

**12.3 Persistence/degradability:** Inconclusive technical data.

**12.4 Bioaccumulation:** Inconclusive technical data.

**12.5 Results of PBT and vPvB assessment:** Inconclusive technical data.

**12.6 Other adverse effects:** OECD Guideline Test results found in the European Chemical Agency Database show this product's components to cause long-term toxicity to aquatic life.

**Other information:** No data was found.



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**Section 13 - Disposal Considerations**

**13.1 Disposal: DO NOT REUSE EMPTY CONTAINER!** Containers should be emptied before being discarded. Contact a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations.

**Section 14 - Transport Information**

**14.1 IMDG Transport Information**



**ID No.:** UN 3295  
**Shipping Name:** HYDROCARBONS, LIQUID, N.O.S.  
**Hazard Class:** 3  
**Packing Group:** II  
**Flash Point:** -5.5 °C - closed cup  
**EmS Number:** F-E, S-D  
**Label:** Flammable  
**Placard:** Flammable  
**Marking:** Marine Pollutant Isooctane

**14.2 ADR/RID Transport Information**



**ID No.:** UN 3295  
**Shipping Name:** Hydrocarbons, liquid, n.o.s.  
**Hazard Class:** 3  
**Packing Group:** II  
**Label:** Flammable  
**Placard:** Flammable  
**Marking:** Marine Pollutant Isooctane

**14.3 UN Transport Information**



**ID No.:** UN 3295  
**Shipping Name:** Hydrocarbons, liquid, n.o.s.  
**Hazard Class:** 3

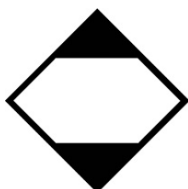
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**Packing Group:** II

**Label:** Flammable

**Placard:** Flammable

**Marking:** Marine Pollutant Isooctane



**14.4 DOT Transport Limited Quantity**

Inner packaging not over

1.0L (0.3 gallons) net capacity each.

Outer Package not over 30kg (66lbs) each



**14.5 IMDG Transport Limited Quantity**

Inner packaging, not over 1.0L (0.3 gallons) net capacity each.

Outer Package not over 30kg (66lbs) each

**ID No.:** UN 3295

**Shipping Name:** HYDROCARBONS, LIQUID, N.O.S.LTD. QTY.

**Hazard Class:** 3

**Packing Group:** II

**Flash Point:** (-5.5° C c.c.)

**EmS Number:** F-E, S-D

**Section 15 - Regulatory Information**

**15.1 Safety, health, and environmental regulations/legislation specific to the substance or mixture:**

**EU Regulations**

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended:**

None present, or none present in regulated quantities.

**Regulation (EC) No. 1021/2019 on persistent organic pollutants:** None present, or none present in regulated quantities.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals,**

**Annex I, Part 1,2,3 and V as amended:** Tetraethyl lead

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**Regulation (EC) No. 1907/2006, REACH Article 59(10). Candidate List:** Tetraethyl lead.

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended:**  
None present or none present in regulated quantities.

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction:** Tetraethyl lead.

**Directive (EC) No. 130/2019 on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** None present, or none present in regulated quantities.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding.:** Toluene and Tetraethyl lead.

**Directive (EU) 18/2012 (Seveso III) on the control of significant accident hazards involving dangerous substances:** Isopentane.

**EU Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:**  
Toluene.

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:**  
Tetraethyl lead.

**Section 16 - Other Information**

**16.1 Key or legend to abbreviations and acronyms used in the safety data sheet:**

ADR: European Agreement concerning the international carriage of Dangerous goods by Road  
UN: The United Nations  
CAS: Chemical Abstracts Service  
EC: European Community  
H: Hazard Statement  
P: Precautionary statements  
IMDG: International Maritime Dangerous Goods

**16.3** Key literature references and sources for data: CHEMpendium database of the Canadian Centre for Occupational Health and Safety (CCOHS), JJ Keller online, European Chemical Agency Data Base and MSDS and SDS of chemicals in this mixture.

**16.4** Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]:  
See SECTION 2.1 (classification).

**16.5** Relevant H and P Codes (number and full text):

**Hazard Statements:**

H225: Highly flammable liquid and vapor.  
H303: Harmful if swallowed  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H336: May cause drowsiness or dizziness.  
H332: Harmful if inhaled.  
H361: Suspected of damaging fertility or the unborn child.  
H373: May cause damage to organs through prolonged or repeated exposure.

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H400: Very Toxic to aquatic life.

H410: Very Toxic to aquatic life with long-lasting effects.

H411: Toxic to aquatic life with long-lasting effects.

**Precautionary statements:**

P301 +P310+ P331: IF SWALLOWED, Immediately call a poison center or doctor. DO NOT induce vomiting.

P303+P361+P353: IF ON SKIN, Take off immediately all contaminated clothing. Rinse skin with water.

P304+340: IF INHALED. Remove to fresh air and keep comfortable for breathing.

P305+P351: IF IN EYES, Rinse cautiously with water for at least 15 minutes.

P308+P313: If exposed or concerned, get medical attention.

P313+P332: If skin irritation persists, get medical attention.

H314: Get medical attention if you feel unwell.

P330: Rinse mouth.

P362+P364: IF ON CLOTHING, take off contaminated clothing and wash it before reuse.

P391: Collect spillage.

**EU Hazard Statements:**

EUH066: Repeated exposure may cause skin dryness or cracking.

**16.6 Training advice:** None

**16.7 Further information:** None

**Disclaimer:** The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. HOWEVER, NO responsibility is assumed for any damage or injury resulting from abnormal use or failure to adhere to recommended practices. The information provided above is furnished on the condition that the person receiving them shall determine the product's suitability for their particular purpose and that they assume the risk of their use.

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END OF SAFETY DATA SHEET