SAFETY DATA SHEET

Diesel Injector Clean + Cetane Boost

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200 and WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR).

1. Identification

Product identifier

Product name Diesel Injector Clean + Cetane Boost

Product number ADS, ADSP

Recommended use of the chemical and restrictions on use

Application Fuel additive.

Uses advised against Avoid the formation of mists.

Details of the supplier of the safety data sheet

Supplier
AMSOIL INC.
Bordner, Ladner, Gervais
Scotia Plaza, 40 King St W
Toronto, ON, Canada M5H 3Y4
T: +1 416-367-6547

Manufacturer
AMSOIL INC.
One AMSOIL Center,
Superior, WI 54880, USA.
T: +1 715-392-7101
compliance@amsoil.com

Emergency telephone number

Emergency telephone
CHEMTREC: Within USA and Canada: 1-800-424-9300
Outside the USA and Canada: +1 703-741-5970
(collect calls accepted) 24/7

2. Hazard(s) identification

Classification of the substance or mixture

OSHA/WHMIS Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard and according to the hazard criteria of the Hazardous Product Regulations.

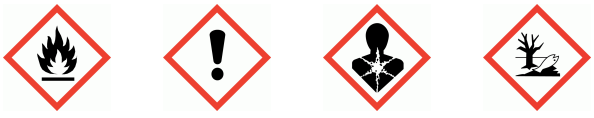
Physical hazards Flam. Liq. 3 - H226

Health hazards Skin Irrit. 2 - H315 Carc. 2 - H351 Repr. 1B - H360F STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304

Environmental hazards Aquatic Acute 2 - H401 Aquatic Chronic 2 - H411

Label elements

Hazard symbols



Signal word Danger

Diesel Injector Clean + Cetane Boost

Hazard statements

H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H351 Suspected of causing cancer.
H360F May damage fertility.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
H304 May be fatal if swallowed and enters airways.

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P240 Ground/ bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe vapor/ spray.
P264 Wash contaminated skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective clothing, gloves, eye and face protection.
P301+P310 If swallowed: Immediately call a poison center/ doctor.
P302+P352 If on skin: Wash with plenty of water.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P308+P313 If exposed or concerned: Get medical advice/ attention.
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
P391 Collect spillage.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

Hydrogenated base oil, Xylene, Naphthalene, phenol, 4-dodecyl-, branched

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Hydrogenated base oil **25 - <60%**

CAS number: 64742-95-6

Classification

Flam. Liq. 3 - H226
STOT SE 3 - H336
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

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2-Ethylhexyl nitrate **20 - <45%**

CAS number: 27247-96-7

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Aquatic Chronic 2 - H411

Hydrogenated base oil **5 - <15%**

CAS number: 64742-94-5

Classification
Skin Irrit. 2 - H315
STOT SE 3 - H336
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

1,2,4-Trimethylbenzene **2 - <3%**

CAS number: 95-63-6

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319
STOT SE 3 - H335
Aquatic Chronic 2 - H411

Xylene **0.5 - <1.5%**

CAS number: 1330-20-7

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319
STOT SE 3 - H335
STOT RE 2 - H373
Asp. Tox. 1 - H304

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Naphthalene	**0.5 - <1.5%**
CAS number: 91-20-3	
M factor (Acute) = 1	M factor (Chronic) = 1

Classification
Acute Tox. 4 - H302
Carc. 2 - H351
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

Cumene	**0.2 - <1%**
CAS number: 98-82-8	

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H335
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

phenol, 4-dodecyl-, branched	**0.5 - <1%**
CAS number: 210555-94-5	
M factor (Acute) = 10	M factor (Chronic) = 10

Classification
Skin Corr. 1C - H314
Eye Dam. 1 - H318
Repr. 1B - H360F
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

1,2-Diaminoethane	**0.025 - <0.25%**
CAS number: 107-15-3	

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H302
Acute Tox. 3 - H311
Acute Tox. 4 - H332
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Resp. Sens. 1B - H334
Skin Sens. 1B - H317
Aquatic Chronic 3 - H412

The full text for all hazard statements is displayed in Section 16.

Composition comments The exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

Diesel Injector Clean + Cetane Boost

General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin Contact	Rinse with water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
Ingestion	May cause irritation. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	Redness. Irritating to skin.
Eye contact	May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Diesel Injector Clean + Cetane Boost

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapors may be ignited by a spark, a hot surface or an ember. Vapors may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves, that provides a basic level of protection during chemical incidents is defined by the Canada Occupational Health and Safety Regulations, by provincial guidelines on occupational health and safety or by NFPA standards if applicable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Wash thoroughly after dealing with a spillage. Do not touch or walk into spilled material. Evacuate area. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid inhalation of vapors and spray/mists. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Small Spillages: Absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labeled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

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Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. In use may form flammable/explosive vapour-air mixture. Vapors may accumulate on the floor and in low-lying areas. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharges. May damage fertility. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not reuse empty containers. Avoid contact with used product.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Eliminate all sources of ignition. Take precautionary measures against static discharges. Ground container and transfer equipment to eliminate sparks from static electricity. Keep away from oxidizing materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class Flammable liquid storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Comments The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Under conditions which may generate mists, the following exposure limits are recommended:
Long-term exposure limit (8-hour TWA): 5 mg/m³
Short-term exposure limit (15-minute): 10 mg/m³

1,2,4-Trimethylbenzene

Long-term exposure limit (8-hour TWA): ACGIH 25 ppm 123 mg/m³

Xylene

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Long-term exposure limit (8-hour TWA): OSHA 100 ppm 435 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 100 ppm 434 mg/m³
Short-term exposure limit (15-minute): ACGIH 150 ppm 651 mg/m³
A4

Naphthalene

Long-term exposure limit (8-hour TWA): OSHA 10 ppm 50 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 10 ppm 52 mg/m³
A3, DSens, Sk

Cumene

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 246 mg/m³
Long-term exposure limit (8-hour TWA): OSHA 50 ppm 245 mg/m³
Sk

ACGIH = American Conference of Governmental Industrial Hygienists.
OSHA = Occupational Safety and Health Administration.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.
Sk = Danger of cutaneous absorption.
A4 = Not Classifiable as a Human Carcinogen.
DSens = Dermal sensitizer.

Naphthalene (CAS: 91-20-3)

Immediate danger to life and health	250 ppm

Cumene (CAS: 98-82-8)

Immediate danger to life and health	900 ppm

Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.6), and any relevant provincial regulation relating to health and safety at work. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.9), and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

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Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Gas and combination filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work.
Environmental exposure controls	Keep container tightly sealed when not in use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Yellow.
Odor	Aromatic hydrocarbons.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	44-52°C Pensky-Martens closed cup.
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.9030 - 0.9321
Solubility(ies)	Not known.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.

Diesel Injector Clean + Cetane Boost

Viscosity	1.1 - 1.9 cSt @ 40°C [ASTM D 445]
Explosive properties	Not considered to be explosive.
Oxidizing properties	Does not meet the criteria for classification as oxidizing.
Pour point	<-60°C [ASTM D 97]

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidizing agents.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented. Do not pressurize, cut, weld, drill, grind or otherwise expose containers to heat or sources of ignition.
Materials to avoid	Oxidizing materials. Acids - oxidizing.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	4,287.63

Acute toxicity - dermal

Notes (dermal LD_{50})	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	4,590.39

Acute toxicity - inhalation

Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.
ATE inhalation (gases ppm)	338,738.09
ATE inhalation (vapours mg/l)	41.81

Skin corrosion/irritation

Animal data	Irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization	Based on available data the classification criteria are not met.

Skin sensitization

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Skin sensitization	Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	Contains a substance which may be potentially carcinogenic. IARC Group 2B Possibly carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - fertility	May damage fertility.
Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	STOT SE 3 - H336 May cause drowsiness or dizziness.
Target organs	Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

General information	May damage fertility. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
Ingestion	May cause irritation. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin Contact	Redness. Irritating to skin.
Eye contact	May cause temporary eye irritation.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	Central nervous system
Medical considerations	Skin disorders and allergies.

Toxicological information on ingredients.

Hydrogenated base oil

Acute toxicity - oral

Notes (oral LD_{50})	REACH dossier information. Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50})	REACH dossier information. Based on available data the classification criteria are not met.

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Acute toxicity - inhalation

Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data	Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation	Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization	Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization	Buehler test - Guinea pig: Not sensitizing. REACH dossier information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility	Two-generation study - NOAEC >20000 mg/m³, Inhalation, Rat F1 REACH dossier information. Based on available data the classification criteria are not met.
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 23900 mg/m³, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	STOT SE 3 - H336 May cause drowsiness or dizziness.
Target organs	Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL <500 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard	Aspiration hazard if swallowed.

Hydrogenated base oil

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,000.0
Species	Rat
ATE oral (mg/kg)	5,000.0

Acute toxicity - dermal

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Acute toxicity dermal (LD_{50} mg/kg)	2,001.0
Species	Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	590.0
Species	Rat
ATE inhalation (vapours mg/l)	590.0

Skin corrosion/irritation

Animal data	Dose: 0.5 ml, 24 hours, Rabbit Erythema/eschar score: Moderate to severe erythema (3). Edema score: Slight oedema - edges of area well defined by definite raising (2).

Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.1 ml, 1 minute, Rabbit Not irritating.

Skin sensitization

Skin sensitization	Buehler test - Guinea pig: Not sensitizing.

Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation: Negative.
Genotoxicity - in vivo	Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity	LOAEL 250 mg/kg/day, Dermal, Mouse No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Reproductive toxicity - fertility	Fertility - NOAEL 750 mg/kg/day, Oral, Rat P
Reproductive toxicity - development	Embryotoxicity: - NOAEL: 1000 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

STOT - single exposure	May cause drowsiness or dizziness.
Target organs	Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 750 mg/kg/day, Oral, Rat NOAEC >= 24 mg/m³, Inhalation, Rat

Aspiration hazard

Aspiration hazard	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

12. Ecological information

Toxicity	Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

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Ecological information on ingredients.

Hydrogenated base oil

Toxicity	Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	
Acute toxicity - fish	LL_{50}, 96 hours: 8.2 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 4.5 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL_{50}, 72 hours: 3.1 mg/l, Selenastrum capricornutum

Hydrogenated base oil

Acute aquatic toxicity	
Acute toxicity - fish	LL_{50}, 96 hours: 2 - 5 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EL_{50}, 48 hours: 1.4 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL_{50}, 24 hours: 1 - 3 mg/l, Pseudokirchneriella subcapitata
Chronic aquatic toxicity	
NOEC	
Degradability	--
Chronic toxicity - fish early life stage	NOEL, 28 days: 0.098 mg/l, Oncorhynchus mykiss (Rainbow trout) QSAR model
Chronic toxicity - aquatic invertebrates	EL_{50}, 21 days: 0.89 mg/l, Daphnia magna

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Hydrogenated base oil

Persistence and degradability	The product is readily biodegradable.
Biodegradation	Water - Degradation 77%: 28 days

Hydrogenated base oil

Biodegradation	Water - Degradation 61 %: 28 days Readily biodegradable but failing the 10-day window.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not available.

Ecological information on ingredients.

Diesel Injector Clean + Cetane Boost

Hydrogenated base oil

Bio-Accumulative Potential No data available on bioaccumulation.

Hydrogenated base oil

Bio-Accumulative Potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Mobility in soil

Mobility No data available.

Ecological information on ingredients.

Hydrogenated base oil

Mobility The product contains substances which are insoluble in water and which may spread on water surfaces.

Adsorption/desorption coefficient Water - log Koc: 1.783 < 2.36 @ °C Estimated value.

Hydrogenated base oil

Mobility Volatile.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible. Vapor from residual product may create a highly flammable or explosive atmosphere inside the container. Containers should be thoroughly emptied before disposal because of the risk of an explosion. Do not cut or weld used containers unless they have been thoroughly cleaned internally.

14. Transport information

UN Number

UN No. (TDG) UN1993

UN No. (IMDG) UN1993

UN No. (ICAO) UN1993

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UN No. (DOT)	UN1993

UN proper shipping name

Proper shipping name (TDG)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrogenated base oil, 2-Ethylhexyl nitrate)
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrogenated base oil, 2-Ethylhexyl nitrate, phenol, 4-dodecyl-, branched)
Proper shipping name (ICAO)	FLAMMABLE LIQUID, N.O.S. (CONTAINS Hydrogenated base oil, 2-Ethylhexyl nitrate)
Proper shipping name (DOT)	FLAMMABLE LIQUIDS, N.O.S. (CONTAINS Hydrogenated base oil, 2-Ethylhexyl nitrate)

Transport hazard class(es)

DOT hazard class	3
DOT hazard label	3
TDG class	3
TDG label(s)	3
IMDG Class	3
ICAO class/division	3

DOT transport labels

Transport labels

Packing group

TDG Packing Group	III
IMDG packing group	III
ICAO packing group	III
DOT packing group	III

Environmental hazards

Environmentally Hazardous Substance

Special precautions for user

EmS	F-E, S-E
DOT reportable quantity	RQ: Naphthalene (15497.5088 lbs), RQ: Xylene (7527.5131 lbs)
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

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15. Regulatory information

Regulatory References OSHA Hazard Communication Standard 29 CFR §1910.1200 Hazardous Products Regulation (SOR/2015-17) Transportation of Dangerous Goods Regulations -SOR/2015-100.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed or exempt:

Cumene

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

Xylene

Final CERCLA RQ: 100(45.4) pounds (Kilograms)

Naphthalene

Final CERCLA RQ: 100(45.4) pounds (Kilograms)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

The following ingredients are listed or exempt:

1,2,4-Trimethylbenzene

1.0 %

Cumene

1.0 %

Xylene

0.1 %
1.0 %

Naphthalene

0.1 %

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

The following ingredients are listed or exempt:

Cumene

Carcinogen.

Naphthalene

Carcinogen.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed or exempt:

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1,2,4-Trimethylbenzene

Cumene

Xylene

Naphthalene

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
The following ingredients are listed or exempt:

Cumene

Xylene

Naphthalene

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:

1,2,4-Trimethylbenzene

Cumene

Xylene

Naphthalene

Rhode Island "Right To Know" List
The following ingredients are listed or exempt:

Cumene

Xylene

Naphthalene

Minnesota "Right To Know" List
The following ingredients are listed or exempt:

1,2,4-Trimethylbenzene

Cumene

Xylene

Naphthalene

New Jersey "Right To Know" List
The following ingredients are listed or exempt:

1,2,4-Trimethylbenzene

Cumene

Xylene

Naphthalene

Pennsylvania "Right To Know" List
The following ingredients are listed or exempt:

1,2,4-Trimethylbenzene

Cumene

Xylene

Naphthalene

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Inventories

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

16. Other information

Abbreviations and acronyms used in the safety data sheet	C.A.S. = Chemical Abstracts Service; E.C. No = European Commission number; GHS = Globally Harmonised System; OSHA = Occupational Safety and Health Administration; WHMIS = Workplace Hazardous Materials Information System; DOT = Department of Transport; TDG = Transport of Dangerous Goods Regulations; IMDG = International Maritime Dangerous Goods; IATA = International Air Transport Association; SARA = Superfund Amendments and Reauthorization Act; CERCLA = Comprehensive Environmental; EPCRA = Emergency Planning and Community Right-to-Know Act; TSCA = Toxic Substances Control Act; LD/LC/EC = Lethal Dose,Lethal Concentration/Effect Concentration for 50% of population; NOEC = No Overall Effect Concentration; NOEL = No Overall Effect Level; REACH = Registration, Evaluation, Authorisation & Restriction of Chemicals; STOT-RE = Single Target Organ Toxicity - Repeat Exposure; STOT-SE= Specific Target Organ Toxicity - Single Exposure; PBT = Persistent, Bioaccumulative, Toxic; vPvB = Very Persistent, Very Bioaccumulative.
Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic) Asp. Tox. = Aspiration hazard Carc. = Carcinogenicity Flam. Liq. = Flammable liquid Repr. = Reproductive toxicity Skin Irrit. = Skin irritation STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure
Key literature references and sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	This is the first issue.
Revision date	10/23/2018
SDS No.	8113

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Hazard statements in full

H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H360F May damage fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs (Central nervous system, Liver, Kidneys) through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H401 Toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.