



SAFETY DATA SHEET

Diesel All-In-One

Date : 05/15/2017

Version : 1.2

Section 1. Identification

GHS product identifier	: Diesel All-In-One
Code	: ADB, ADBP
Product type	: Liquid.
Identified uses	: Diesel Fuel Additive.
Manufacturer	: AMSOIL INC. One AMSOIL Center Superior, WI 54880 Tel: +1 715-392-7101
Initial Supplier (Canada)	: AMSOIL INC. Bordner, Ladner, Gervais Scotia Plaza, 40 King St W Toronto, ON, Canada M5H 3Y4 Tel: +1 416-367-6547
Emergency telephone number (with hours of operation)	: CHEMTREC: Within USA and Canada: 1-800-424-9300; Outside USA and Canada: +1 703-741-5970 (collect calls accepted) (24/7)

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION (Fertility) - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms

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**Signal word**

: Danger

Hazard statements

: Flammable liquid and vapor.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 May cause an allergic skin reaction.
 Suspected of damaging fertility or the unborn child.
 Suspected of causing cancer.
 May be fatal if swallowed and enters airways.
 May cause damage to organs through prolonged or repeated exposure. (hearing organs)
 Toxic to aquatic life with long lasting effects.

Precautionary statements**Prevention**

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Avoid release to the environment. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: Collect spillage. Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified (HNOC)**Physical hazards not otherwise classified (PHNOC)**

: None known.

Health hazards not otherwise classified (HHNOC)

: None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.
Product code : ADB, ADBP

Ingredient name	%	CAS number
Solvent naphtha, light arom.	40 - 60	64742-95-6
1,2,4-Trimethylbenzene	15 - 25	95-63-6
2-Ethylhexyl nitrate	15 - 25	27247-96-7
Hydrogenated Base Oil (64742-94-5)	10 - 15	64742-94-5
2-Butoxyethanol	1 - 5	111-76-2
Xylene	1 - 5	1330-20-7
2-Ethylhexan-1-ol	1 - 5	104-76-7
Ethylbenzene	1 - 5	100-41-4
Naphthalene	1 - 5	91-20-3
Phenol, 4-dodecyl-, branched	0.1 - 1	210555-94-5
Cumene	0.1 - 1	98-82-8
Ethylenediamine	0.1 - 1	107-15-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. 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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet or water-based fire extinguishers.

Specific hazards arising from the chemical

: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Avoid contact with used product. Do not reuse container.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Under conditions which may generate mists, the following exposure limits are recommended:
ACGIH TLV TWA: 5 mg/m³ ; STEL: 10 mg/m³.

United States

Ingredient name	Exposure limits
1,2,4-Trimethylbenzene	<p>ACGIH TLV (United States, 3/2015). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.</p>
2-Butoxyethanol	<p>NIOSH REL (United States, 10/2013). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p>
Xylene	<p>ACGIH TLV (United States, 3/2015). TWA: 20 ppm 8 hours.</p>
Ethylbenzene	<p>NIOSH REL (United States, 10/2013). Absorbed through skin. TWA: 5 ppm 10 hours. TWA: 24 mg/m³ 10 hours.</p>
Xylene	<p>OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours.</p>
Ethylbenzene	<p>ACGIH TLV (United States, 3/2015). TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours.</p>
Ethylbenzene	<p>STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.</p>
Ethylbenzene	<p>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p>
Ethylbenzene	<p>ACGIH TLV (United States, 3/2015). TWA: 20 ppm 8 hours.</p>
Ethylbenzene	<p>NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours.</p>
Ethylbenzene	<p>STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</p>
Ethylbenzene	<p>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p>
Ethylbenzene	<p>ACGIH TLV (United States, 3/2015). Absorbed through skin. TWA: 10 ppm 8 hours.</p>
Ethylbenzene	<p>TWA: 52 mg/m³ 8 hours.</p>
Ethylbenzene	<p>NIOSH REL (United States, 10/2013). TWA: 10 ppm 10 hours.</p>
Ethylbenzene	<p>TWA: 50 mg/m³ 10 hours. STEL: 15 ppm 15 minutes.</p>
Ethylbenzene	<p>STEL: 75 mg/m³ 15 minutes.</p>
Ethylbenzene	<p>OSHA PEL (United States, 2/2013). TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours.</p>
Ethylbenzene	<p>ACGIH TLV (United States, 3/2015). TWA: 50 ppm 8 hours.</p>
Ethylbenzene	<p>NIOSH REL (United States, 10/2013). Absorbed through skin. TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours.</p>
Ethylbenzene	<p>OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.</p>
Ethylbenzene	<p>ACGIH TLV (United States, 3/2015). Absorbed through skin. TWA: 10 ppm 8 hours.</p>
Ethylbenzene	<p>NIOSH REL (United States, 10/2013). TWA: 10 ppm 10 hours. TWA: 25 mg/m³ 10 hours.</p>
Ethylbenzene	<p>OSHA PEL (United States, 2/2013). TWA: 10 ppm 8 hours. TWA: 25 mg/m³ 8 hours.</p>

Canada

Occupational exposure limits

Ingredient name	Exposure limits
1,2,4-Trimethylbenzene	<p>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 123 mg/m³ 8 hours. 8 hrs OEL: 25 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2015). TWA: 25 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 25 ppm 8 hours. TWAEV: 123 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 7/2015). TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada). STEL: 30 ppm 15 minutes. TWA: 25 ppm 8 hours.</p>
Ethylbenzene	<p>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2015). TWA: 20 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 7/2015). TWA: 20 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p>
Naphthalene	<p>CA Alberta Provincial (Canada, 4/2009). Absorbed through skin. 15 min OEL: 15 ppm 15 minutes. 8 hrs OEL: 10 ppm 8 hours. 8 hrs OEL: 52 mg/m³ 8 hours. 15 min OEL: 79 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin. TWA: 10 ppm 8 hours. STEL: 15 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 7/2015). TWA: 10 ppm 8 hours. TWA: 52 mg/m³ 8 hours. STEL: 15 ppm 15 minutes. STEL: 79 mg/m³ 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 ppm 8 hours. TWAEV: 52 mg/m³ 8 hours. STEV: 15 ppm 15 minutes. STEV: 79 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada). Absorbed through skin. STEL: 15 ppm 15 minutes. TWA: 10 ppm 8 hours.</p>
Cumene	<p>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 246 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 5/2015). TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p>CA Ontario Provincial (Canada, 7/2015). TWA: 50 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 50 ppm 8 hours. TWAEV: 246 mg/m³ 8 hours.</p>

<p>Ethylenediamine</p>	<p>CA Saskatchewan Provincial (Canada). STEL: 74 ppm 15 minutes. TWA: 50 ppm 8 hours. CA Alberta Provincial (Canada, 4/2009). Absorbed through skin. 8 hrs OEL: 25 mg/m³ 8 hours. 8 hrs OEL: 10 ppm 8 hours. CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin. Skin sensitizer. TWA: 10 ppm 8 hours. CA Ontario Provincial (Canada, 7/2015). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 25 mg/m³ 8 hours. CA Quebec Provincial (Canada, 1/2014). Absorbed through skin. Skin sensitizer. TWAEV: 10 ppm 8 hours. TWAEV: 25 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada). Absorbed through skin. STEL: 15 ppm 15 minutes. TWA: 10 ppm 8 hours.</p>
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Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Amber.
Odor : Aromatic hydrocarbon.
Odor threshold : Not available.
pH : Not available.
Melting point : <-60°C (<-76°F)
Boiling point : Not available.
Flash point : Closed cup: 46°C (114.8°F) [Pensky-Martens.]
Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits : Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 0.9047
Solubility : Not available.
Partition coefficient: n-octanol/water : Not available.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Viscosity : Kinematic (40°C (104°F)): 0.024 cm²/s (2.4 cSt)
Volatility : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha, light arom. 1,2,4-Trimethylbenzene	LD50 Oral	Rat	8400 mg/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
2-Butoxyethanol	LD50 Oral	Rat	5 g/kg	-
	LC50 Inhalation Gas.	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	220 mg/kg	-
Xylene	LD50 Oral	Rat	250 mg/kg	-
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
2-Ethylhexan-1-ol	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	1970 mg/kg	-
Ethylbenzene	LD50 Oral	Rat	3730 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Naphthalene	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Dermal	Rabbit	>20 g/kg	-
Cumene	LD50 Oral	Rat	490 mg/kg	-
	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
Ethylenediamine	LD50 Oral	Rat	1400 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Solvent naphtha, light arom. Hydrogenated Base Oil (64742-94-5)	Eyes - Mild irritant	Rabbit	-	24 hours 100 µL	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 µL	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	87 mg	-
Xylene	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 µL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
2-Ethylhexan-1-ol	Eyes - Moderate irritant	Rabbit	-	20 µg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	415 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Severe irritant	Rabbit	-	0.5 ml	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
Cumene	Eyes - Mild irritant	Rabbit	-	86 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 mg	-
Ethylenediamine	Eyes - Severe irritant	Rabbit	-	24 hours 750 µg	-
	Eyes - Severe irritant	Rabbit	-	750 µg	-
	Skin - Moderate irritant	Rabbit	-	450 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 10 mg	-

Sensitization

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
2-Butoxyethanol	-	3	-
Xylene	-	3	-
Ethylbenzene	-	2B	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.

Specific target organ toxicity (single exposure)

Name	Category	Target organs
1,2,4-Trimethylbenzene	Category 3	Respiratory tract irritation
2-Ethylhexan-1-ol	Category 3	Respiratory tract irritation
Phenol, 4-dodecyl-, branched	Category 3	Respiratory tract irritation
Cumene	Category 3	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Target organs
Ethylbenzene	Category 2	hearing organs

Aspiration hazard

Name	Result
Solvent naphtha, light arom.	ASPIRATION HAZARD - Category 1
Hydrogenated Base Oil (64742-94-5)	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Cumene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
- Inhalation** : Adverse symptoms may include the following:
 wheezing and breathing difficulties
 asthma
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Ingestion : Adverse symptoms may include the following:
 nausea or vomiting
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	2333.2 mg/kg
Dermal	4943.6 mg/kg
Inhalation (gases)	78686.8 ppm
Inhalation (vapors)	40.03 mg/L

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - Elasmopus pecteniscrus - Adult	48 hours
2-Butoxyethanol	Acute LC50 7720 µg/l Fresh water Acute EC50 >1000 mg/L Fresh water	Fish - Pimephales promelas Daphnia - Daphnia magna	96 hours 48 hours
2-Ethylhexan-1-ol	Acute LC50 800000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
Ethylbenzene	Acute LC50 1250000 µg/l Marine water Acute LC50 28200 µg/l Fresh water Acute EC50 13300 µg/l Fresh water	Fish - Menidia beryllina Fish - Pimephales promelas Crustaceans - Artemia sp. - Nauplii	96 hours 96 hours 48 hours
Naphthalene	Acute LC50 13900 µg/l Fresh water Acute EC50 1600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate Daphnia - Daphnia magna - Neonate	48 hours 48 hours
Cumene	Acute LC50 2350 µg/l Marine water Acute LC50 213 µg/l Fresh water Acute EC50 2600 µg/l Fresh water Acute EC50 7400 µg/l Fresh water Acute EC50 10600 µg/l Fresh water	Crustaceans - Palaemonetes pugio Fish - Melanotaenia fluviatilis - Larvae Algae - Pseudokirchneriella subcapitata Crustaceans - Artemia sp. - Nauplii	48 hours 96 hours 72 hours 48 hours
Ethylenediamine	Acute LC50 2700 µg/l Fresh water Acute EC50 151000 µg/l Fresh water Acute LC50 115.7 mg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Fish - Pimephales promelas	48 hours 96 hours 96 hours 96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Solvent naphtha, light arom.	-	10 to 2500	high
1,2,4-Trimethylbenzene	3.63	243	low
2-Ethylhexyl nitrate	5.24	-	high
Hydrogenated Base Oil (64742-94-5)	2.8 to 6.5	99 to 5780	high
2-Butoxyethanol	0.81	-	low
Xylene	3.12	8.1 to 25.9	low
2-Ethylhexan-1-ol	2.9	25.33	low
Ethylbenzene	3.6	-	low
Naphthalene	3.4	36.5 to 168	low
Cumene	3.55	94.69	low
Ethylenediamine	-7.02	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : There is no data available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations








Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor

from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Xylene Naphthalene	1330-20-7 91-20-3	Listed Listed	U239 U165

Section 14. Transport information

	DOT	TDG	IMDG	IATA
UN number	UN1993	UN1993	UN1993	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (Solvent naphtha, light arom.). Marine pollutant (2-Ethylhexyl nitrate, Naphthalene) RQ (Xylene, Naphthalene)	FLAMMABLE LIQUIDS, N.O.S. (Solvent naphtha, light arom.)	FLAMMABLE LIQUIDS, N.O.S. (Solvent naphtha, light arom.). Marine pollutant (1,2,4-Trimethylbenzene, 2-Ethylhexyl nitrate)	FLAMMABLE LIQUIDS, N.O.S. (Solvent naphtha, light arom.)
Transport hazard class(es)	3  	3  	3  	3 
Packing group	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional information	<p>This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids, that are marine pollutants, are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by vessel.</p> <p>This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.</p>	<p>Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).</p> <p>The marine pollutant mark is not required when transported by road or rail.</p> <p>Remarks Limited quantity</p>	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p>Remarks Limited quantity</p>	<p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p>Remarks Limited quantity</p>

	<p>Reportable quantity 3064.2 lbs / 1391.2 kg [406.22 gal / 1537.7 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</p> <p>Remarks Limited quantity</p>		
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AERG : 128

DOT-RQ Details : Xylene 100 lbs / 45.4 kg [13.946 gal / 52.791 L]
 Naphthalene 100 lbs / 45.4 kg

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

- U.S. Federal regulations** : **United States inventory (TSCA 8b):** All components are listed or exempted.
Clean Water Act (CWA) 307: Ethylbenzene; Naphthalene
Clean Water Act (CWA) 311: Xylene; Ethylbenzene; Naphthalene; Ethylenediamine; Formaldehyde
- Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed
- Clean Air Act Section 602 Class I Substances** : Not listed
- Clean Air Act Section 602 Class II Substances** : Not listed
- DEA List I Chemicals (Precursor Chemicals)** : Not listed
- DEA List II Chemicals (Essential Chemicals)** : Not listed

SARA 302/304

Composition/information on ingredients

Name	EHS	SARA 302 TPQ		SARA 304 RQ	
		(lbs)	(gallons)	(lbs)	(gallons)
Ethylenediamine	Yes.	10000	1337.1	5000	668.5
Formaldehyde	Yes.	500	73.9	100	14.8

SARA 304 RQ : 2414584.1 lbs / 1096221.2 kg [320096.2 gal / 1211695.8 L]

SARA 311/312

Classification : Fire hazard
 Immediate (acute) health hazard
 Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Solvent naphtha, light arom.	Yes.	No.	No.	Yes.	No.
1,2,4-Trimethylbenzene	Yes.	No.	No.	Yes.	No.
2-Ethylhexyl nitrate	Yes.	No.	No.	Yes.	No.
2-Butoxyethanol	Yes.	No.	No.	Yes.	No.
Xylene	Yes.	No.	No.	Yes.	No.
2-Ethylhexan-1-ol	Yes.	No.	No.	Yes.	No.
Ethylbenzene	Yes.	No.	No.	Yes.	Yes.
Naphthalene	Yes.	No.	No.	Yes.	Yes.
Phenol, 4-dodecyl-, branched	No.	No.	No.	Yes.	Yes.
Cumene	Yes.	No.	No.	Yes.	Yes.
Ethylenediamine	Yes.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	1,2,4-Trimethylbenzene	95-63-6	15 - 25
	2-Butoxyethanol	111-76-2	1 - 5
	Xylene	1330-20-7	1 - 5
	Ethylbenzene	100-41-4	1 - 5
	Naphthalene	91-20-3	1 - 5
Supplier notification	1,2,4-Trimethylbenzene	95-63-6	15 - 25
	2-Butoxyethanol	111-76-2	1 - 5
	Xylene	1330-20-7	1 - 5
	Ethylbenzene	100-41-4	1 - 5
	Naphthalene	91-20-3	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: 1,2,4-Trimethylbenzene; Xylene; Ethylbenzene; 2-Ethylhexan-1-ol; 2-Butoxyethanol; Naphthalene
- New York** : The following components are listed: Xylene; Cumene; Ethylbenzene; Naphthalene
- New Jersey** : The following components are listed: 1,2,4-Trimethylbenzene; Xylene; Cumene; Ethylbenzene; 2-Butoxyethanol; Naphthalene
- Pennsylvania** : The following components are listed: 1,2,4-Trimethylbenzene; Xylene; Cumene; Ethylbenzene; 2-Ethylhexan-1-ol; 2-Butoxyethanol; Naphthalene

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Naphthalene	Yes.	No.	Yes.	No.
Cumene	Yes.	No.	No.	No.
Formaldehyde	Yes.	No.	Yes.	No.
Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)

Canadian lists

Canadian NPRI : The following components are listed: Solvent naphtha, light arom.; 1,2,4-Trimethylbenzene; Xylene; Ethylbenzene; Hydrogenated Base Oil (64742-94-5); 2-Butoxyethanol; Naphthalene

CEPA Toxic substances : The following components are listed: 2-Butoxyethanol; Naphthalene

Canada inventory : All components are listed or exempted.

Section 16. Other information

History

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Prepared by : AMSOIL INC.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.