EF2288 II

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Revision Date: 1/28/2025 Supersedes: 01/06/2016 Version: 1.1

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: EF2288 II

1.2. Intended Use of the Product

No use is specified.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Soltex Inc. (Synthetic Oils & Lubricants of Texas)
4 Waterway Square Place, Suite 275
The Woodlands, TX 77380
(281) 587-0900
soltexinc.com

1.4. Emergency Telephone Number

Emergency Number : (800)-424-9300 (CHEMTREC); (281)-587-0900 (Other Safety Information)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification (GHS-US)

Asp. Tox. 1 H304

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H304 - May be fatal if swallowed and enters airways.

Precautionary Statements

Prevention : Not applicable.

Response : IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

Storage : Store locked up.

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

2.3. Other Hazards None known.

2.4. Unknown Acute Toxicity (GHS-US) No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances Not applicable

3.2. Mixture

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light naphthenic	50 - 80	64742-53-6
Distillates (petroleum), hydrotreated light paraffinic	20 - 50	64742-55-8
Distillates (petroleum), solvent-refined light naphthenic	0 - 5	64741-97-5

Distillates (petroleum), solvent-refined heavy naphthenic	0 - 5	64741-96-4
2,6-di-tert-butyl-p-cresol	<0.3	128-37-0

Note: Specific chemical identities and/or exact percentages have been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If victim is unconscious and: If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Immediately obtain specialist medical assessment and treatment for the victim. Call a physician.

Skin contact: Remove contaminated clothing and shoes. Wash with soap and water. Handle with care and dispose in a safe manner. Seek medical attention if skin irritation, swelling or redness develops and persists. Accidental high pressure injection through the skin requires immediate medical attention. Do not wait for symptoms to develop.

Ingestion: Always assume that aspiration has occurred. Do not induce vomiting as there is high risk of aspiration. Never give anything by mouth to an unconscious person. Seek professional medical attention or send the casualty to a hospital. Do not wait for symptoms to develop.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Eye contact: Eye contact may cause redness and transient pain.

Inhalation: Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

Skin contact: No known significant effects or critical hazards.

Ingestion: Nausea or vomiting. Aspiration hazard if swallowed. Can enter lungs and cause damage. Ingestion (swallowing) of this material may result in an altered state of consciousness and loss of coordination.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician: Due to low viscosity there is a risk of aspiration if the product enters the lungs. Ingestion (swallowing) of this material may result in an altered state of consciousness and loss of coordination. Treat symptomatically.

Specific treatments / Protection of first-aiders: Always assume that aspiration has occurred. No action shall be taken involving any personal risk or without suitable training. Before attempting to rescue casualties, isolate area from all potential sources of ignition including disconnecting electrical supply. Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces.

See toxicological information (Section 11)

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable extinguishing media: Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media: Do not use direct water jets on the burning product; they could cause splattering and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special Hazards Arising From the Substance or Mixture

In a fire or if heated, a pressure increase will occur and the container may burst. This substance will float and can be reignited on surface water.

Hazardous thermal decomposition products: Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H2S, SOx (sulfur oxides) or sulfuric acid and unidentified organic and inorganic compounds.

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.
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

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

6.1.1. For Non-Emergency Personnel

Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note : recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

6.1.2. For Emergency Personnel

Small spillages: normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note : gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory protection : A half or full-face respirator with filter(s) for organic vapours (and when applicable for H2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2. Environmental Precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3. Methods and Material for Containment and Cleaning Up

6.3.1. Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials.

6.3.2. Large spill

Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use and store only outdoors or in a well-ventilated area.

Avoid release to the environment.

Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash hands thoroughly after handling. Change contaminated clothes at the end of working shift.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.

Store separately from oxidising agents.

Recommended materials for containers, or container linings use mild steel, stainless steel. Not suitable : Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer.

Keep only in the original container or in a suitable container for this kind of product. Keep containers tightly closed and properly labelled. Protect from sunlight. Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

7.3. Specific End Use(s)

Insulating Oil.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Occupational exposure limits

Ingredient name	Exposure limits
Oil mist for Base oil component(s)	**ACGIH TLV (United States, 3/2012).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Mist **NIOSH REL (United States, 1/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **OSHA PEL (United States, 6/2010).** TWA: 5 mg/m³ 8 hours.
2,6-di-tert-butyl-p-cresol	**OSHA PEL 1989 (United States, 3/1989).** TWA: 10 mg/m³ 8 hours. **NIOSH REL (United States, 1/2013).** TWA: 10 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2012).** TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction and vapor

Recommended monitoring procedures If this product contains ingredients with exposure limits, personal, workplace atmosphere 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. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.

Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection 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. Ensure that eyewash stations and safety showers are close to the workstation location.
Hygiene measures	Wash contaminated clothing before reuse.
Eye/face protection	If potential exists for splashing, use goggles.
Skin protection	
Hand protection	Wear oil-resistant protective gloves (e.g. nitril rubber). PVC gloves. Neoprene gloves.
Body protection	Wear protective clothing if there is a risk of skin contact. Change contaminated clothes at the end of working shift.
Other skin protection	Appropriate footwear and any additional skin protection measures should beselected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Thermal hazards	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical state	Liquid.
Color	Light yellow
Odor	Odorless / Light petroleum.
Odor threshold	Not applicable.
pH	Not applicable.
Melting point/freezing point Initial	-48°C (-54,4°F)
boiling point and boiling range	>250°C (>482°F)
Flash point	Closed cup: 130°C (266°F) [Pensky-Martens.] Open cup: 135°C (275°F) [COC]
Burning time	Not applicable.
Burning rate	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	160 Pa @ 100 °C
Vapor density	Not available.
Relative density	Not available.
Solubility	Insoluble in water.
Partition coefficient: n-octanol/ water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	>280°C (>536°F)
Viscosity	Kinematic (40°C (104°F)): 0,095 cm^2/s (9,5 cSt)

SECTION 10: STABILITY AND REACTIVITY

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

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Under normal conditions of storage and use. hazardous polymerization will not occur.

10.4. Conditions to Avoid: Oxidizing agent.

10.5. Incompatible Materials: Keep away from extreme heat and oxidizing agents.

10.6. Hazardous Decomposition Products: Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H2S, SOx (sulfur oxides) or sulfuric acid and unidentified organic and inorganic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated light naphthenic	LC50 Inhalation Dusts and mists	Rat	>5,53 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5,53 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-refined light naphthenic	LC50 Inhalation Dusts and mists	Rat	>5,53 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-refined heavy naphthenic	LC50 Inhalation Dusts and mists	Rat	>5,53 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion Skin	Non-irritating to the skin.
Eyes	Mild irritant.
Sensitization Skin	Non-sensitizer to skin.
Mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	The base oil in this product is based on an severely hydrotreated distillate; (pressure is above 800 psi at normal process temperature, see Federal Register vol. 50 No 245 December 20, 1085). The product should not be regarded as a carcinogen.

Reproductive toxicity

Conclusion/Summary: Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary: Based on available data, the classification criteria are not met.

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light naphthenic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined light naphthenic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined heavy naphthenic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	Not available.

Potential acute health effects

Eye contact	Eye contact may cause redness and transient pain.
Inhalation	Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.
Skin contact	No known significant effects or critical hazards.
Ingestion	Nausea or vomiting. Aspiration hazard if swallowed. Can enter lungs and cause damage. Ingestion (swallowing) of this material may result in an altered state of consciousness and loss of coordination.

Potential chronic health effects

Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light naphthenic	Acute IC50 >100 mg/l	Algae	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
Distillates (petroleum), hydrotreated light paraffinic	Acute IC50 >100 mg/l	Algae	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
Distillates (petroleum), solvent-refined light naphthenic	Acute IC50 >100 mg/l	Algae	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
Distillates (petroleum), solvent-refined heavy naphthenic	Acute EC50 >100 mg/l	Fish	96 hours

Conclusion/Summary: Aquatic toxicity data on base oils indicate LC50 values of > 100 mg/l, which is considered as low toxicity.

12.2. Persistence and Degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated light naphthenic	-	-	Inherent
Distillates (petroleum), hydrotreated light paraffinic	-	-	Inherent
Distillates (petroleum), solvent-refined light naphthenic	-	-	Inherent
Distillates (petroleum), solvent-refined heavy naphthenic	-	-	Inherent

12.3. Bioaccumulative Potential

The product has a potential to bioaccumulate.

12.4. Mobility in Soil

Soil/water partition coefficient (KOC)	Not available.
Mobility	High mobility in soil predicted, based on log Kow > 3.0.

12.5. Other Adverse Effects

Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

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 at all times 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 emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code Mineral oil.

SECTION 15: REGULATORY INFORMATION

OSHA/HCS status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
HCS Classification	ASPIRATION HAZARD - Category 1
U.S. Federal regulations	**United States inventory (TSCA 8b)**: All components are listed or exempted. **SARA 302/304**: No products were found. **SARA 311/312 Hazards identification**: Delayed (chronic) health
State regulations	
Massachusetts	The following components are listed: MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED LIGHT NAPHTHENIC; MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED LIGHT PARAFFINIC; MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-REFINED LIGHT NAPHTHENIC
New York	None of the components are listed.
New Jersey	The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED); MINERAL OIL (UNTREATED and MILDLY TREATED); MINERAL OIL (UNTREATED and MILDLY TREATED); MINERAL OIL (UNTREATED and MILDLY TREATED)
Pennsylvania	None of the components are listed.
California Prop. 65	Not listed.
United States inventory (TSCA 8b)	All components are listed or exempted.
Canada inventory	All components are listed or exempted.

International Regulations

Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

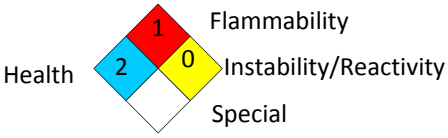
Hazardous Material Information System (U.S.A.)

Health	1
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Revision Date : 01/28/2025

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

Soltex Inc. (Synthetic Oils & Lubricants of Texas)
4 Waterway Square Place, Suite 275
The Woodlands, TX 77380
(281) 587-0900
soltexinc.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.