ENEOS Corporation

SAFETY DATA SHEET

SDS: A4190-E81US
Date Prepared: 2018/12/03
Date Revised: 2022/01/24

Product Name: Subaru High Torque CVTF-LV (FCL-525ST)

1. Identification

Product name:	Subaru High Torque CVTF-LV (FCL-525ST)
Manufacturer/Supplier:	ENEOS Corporation
Address:	1-2,Otemachi 1-Chome,Chiyoda-ku,Tokyo, 100-8162 Japan
Charge section:	Lubricants Quality Assurance Group (TEL:+81 3-6260-2004)
Emergency telephone number:	+81-3-6260-2004 (Contact Available time: From 9:00 to 17:30 GMT +9 hours)
Recommended use and restrictions on use:	General industrial application

2. Hazards identification

Classification of the chemical in accordance with OSHA Hazard Communication Standard (29 CFR §1910.1200)

Hazard category	Category
Flammable liquids	No Classification
Acute toxicity (oral)	No Classification
Acute toxicity (dermal)	No Classification
Acute toxicity(dust, mist)	No Classification
Skin sensitizer	Category 1
Aspiration hazard	No Classification

Label elements

Pictograms:

Signal word: Warning

Hazard statement: May cause allergic skin reaction

Precautionary statements:

Prevention
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not allow the eyes to become exposed to the product. Do not swallow the product.
- Contaminated work clothing must not be allowed out of the workplace.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.

Response
- If swallowed: Immediately call a poison center/doctor/...

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If swallowed: Rinse mouth. Do NOT induce vomiting.

If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.

If on skin: Wash with plenty of water/...

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Storage: The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.

Containers that have been opened must be tightly sealed.

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

If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.

Emergency overview : PBT or vPvB : Not applicable

3. Composition/information on ingredients

3.1. Substances

Not Applicable

3.2. Mixtures

Ingredients and Concentration

Chemical Name	Concentration wt.%	CAS#
Base Oil(s)	70-80	Trade Secret
Additives	<30	
Isooctadecanoic acid, reaction products with tetraethylenepentamine	1-3	Trade Secret

4. First-aid measures

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing.

Cover the body with blankets to keep warm and quiet. If you feel unwell, seek medical advice.

Skin contact: Immediately flush skin with large amounts of water.

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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Eye contact:	Rinse with clean water carefully for several minutes. Remove contact lenses if present and if removal is easy, then continue rinsing. Rinse for 15 minutes at a minimum and seek medical attention.
Ingestion:	Do not induce vomiting. Drink [one glass] [two glasses] of water. Call a physician [or poison control center] immediately.
Most important symptoms/effects, acute and delayed.	May cause allergic skin reaction. Dermatis. Rash.
Protection for first aid person:	No information.

5. Fire-fighting measures

Suitable extinguishing media:	Mist of loaded liquid, dry chemicals, carbon dioxide, fire foam, and dry sand are effective.
Unsuitable extinguishing media:	Use of straight stream of water can cause a risk of spreading fire.
Specific hazards arising from the chemical:	In some cases of fire, may release irritant gases. When burnt, may generate carbon monoxide and other toxic gases.
Specific extinguishing methods:	Spray water to the surrounding facilities for cooling. Keep unauthorized persons off the site of occurrence of fire and the surroundings. Even after extinction, cool containers thoroughly with plenty of water.
Special protective equipment and precautions for fire fighters:	Wear fire/flame resistant/retardant clothing. Fight fire from windward direction while wearing protective equipment. If contact with skin is expected, wear impervious protective equipment and gloves. Use air-breathing apparatus and protective clothing whenever necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Wear protective equipment when working. Remove nearby potential ignition sources immediately. When mist is generated, use respiratory equipment to prevent inhalation of mist. Do not touch or walk through spillage. Pay attention to the site of spillage, which is slippery.

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Environmental precautions:	Prevent spreading of oil spill with earth and sand, sandbags, or other proper materials and use care not to allow the oil spill to flow to street drains, sewer systems, and rivers. At sea, install oil spill containment booms to prevent spreading of spills and absorb with absorption mat or other proper materials.
Methods and materials for containment and cleaning up:	In case of spillage in small quantity, collect spillage by absorbing with earth, sand, sawdust, waste, or other proper materials. In case of spillage in large quantity, enclose with embankment to prevent spreading of spillage and collect spillage in empty containers to the extent possible.
Prevention of second accident:	In case of spillage, immediately inform the organizations concerned of the spillage to prevent possible accidents and spreading of spillage. Remove nearby potential ignition sources immediately and make fire-extinguishing agents available. Remove spillage completely, and ventilate and clean the site and the surroundings.

7. Handling and storage

Handling

Technical measures:	Contaminated work clothing must not be allowed out of the workplace. Keep away from any possible contact with sparks, open flames, and high-temperature materials, and do not allow release of vapor without justification. Use pumps or other proper equipment for taking out from containers. Do not siphon with your mouth using a tube. Do not drink. When mist is generated, use respiratory equipment to prevent inhalation of mist. In case of vapor/mist dispersion, install a closed system, local ventilation system, and/or other proper equipment for the sources of vapor/mist generation. Avoid rough handling of containers such as falling, dropping, exposing to shock, and dragging.
Ventilation requirements:	Maintain adequate ventilation when handling indoors.
Precautions for safe handling:	Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid falling, dropping, exposing to shock, or dragging of containers. Wash hands and face thoroughly after handling. Be careful with fire. Wear protective gloves when opening containers to eliminate a risk of hand injury.

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Contact avoidance: Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.
Contact with and storage in the same location of halogens, strong acids, alkali and oxidized substances must be avoided.

Hygiene measures: After handling Wash hands thoroughly.

Storage

Storage conditions: Store in a well ventilated, cool, dry, dark place, protecting from direct sunlight and keeping away from any potential ignition sources and high-temperature materials.
Store tightly stopped after use to prevent possible contamination with dust and moisture.
Preferably store locked up in a proper storage area.

Safety adequate container materials: Use spill-proof containers that are free of damage/corrosion.

8. Exposure controls/personal protection

Appropriate engineering controls: In case of mist generation, enclose the source of mist generation, or install a ventilation system.
Install eye cleaning and body cleaning equipment near the handling site.

Control parameters

Chemical Name	U.S. - OSHA			ACGIH	
	Ceiling	STEL	TWA	TLV-STEL	TLV-TWA
Base Oil(s)	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm 5mg/m3(Mineral Oil Mist)
Isooctadecanoic acid, reaction products with tetraethylenepentamine	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3

Personal protective equipment

Respiratory protection: Wear protective gloves/protective clothing/eye protection/face protection.
Not needed under normal conditions, but wear a gas mask (against organic gases) whenever required.

Hand protection: Wear protective gloves/protective clothing/eye protection/face protection.
In case of prolonged or repeated exposure, wear oil-resistant hand protection.

Eye/face protection: Wear protective gloves/protective clothing/eye protection/face protection.

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	In case of exposure to splashes, wear ordinary type goggles.
Skin protection:	Wear protective gloves/protective clothing/eye protection/face protection. In case of handling over a prolonged period of time or in case of exposure to oil, wear oil-resistant, long-sleeved work clothing.
Hygiene measures:	Take off contaminated clothing and wash thoroughly before reuse. Wash hands thoroughly after handling.

9. Physical and chemical properties

Product

Appearance:	Liquid
Form:	Liquid
Color:	Yellow
Odor:	Slight odor
Melting point/freezing point:	Pour Point≦-45(℃)
Initial boiling point and boiling range:	No data
Flammability (solid, gas):	No data
Upper/lower flammability or explosive limits:	No data
Flash point:	≧170(℃)Cleveland Open Cup
Auto-ignition temperature:	Estimate200－410(℃)
Decomposition temperature:	No data.
pH:	No data
Kinematic viscosity:	＞20.5(mm2/sec)(40℃)
Solubility:	water : Insoluble.
Partition coefficient: n-octanol/water:	No data.
Vapour pressure:	No data
Density(g/cm3):	0.839(15℃)
Vapour density:	No data.
Particle characteristics:	No data
Relative density :	No data.
Viscosity:	No data.

10. Stability and reactivity

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Reactivity:	Stable when stored or preserved in a dark place at room temperature.
Chemical stability:	Stable when stored or preserved in a dark place at room temperature.
Possibility of hazardous reactions:	Keep away from any possible contact with strong oxidizing agents.
Conditions to avoid:	Contact with incompatible hazard substances Prolonged heating, open flames, and ignition sources
Incompatible materials:	Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.
Hazardous decomposition products:	When burnt, may release carbon monoxide and other gases.

11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics : May cause allergic skin reaction. Dermatitis. Rash.

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

Short term exposure:
Potential immediate effects : No information
Potential delayed effects : No information
Long term exposure:
Potential immediate effects : No information
Potential delayed effects : No information

Product

Acute toxicity (oral):	No Classification For mixtures, hazard category was identified based on the classification criteria for mixtures.
Acute toxicity (dermal):	No Classification For mixtures, hazard category was identified based on the classification criteria for mixtures.
Acute toxicity (inhalation):	Classification not possible (Gas) Classification not possible (Vapour) No Classification (Dust/Mist) For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin corrosion/irritation:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Serious eye damage/irritation:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory sensitization:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin sensitization:	Category 1 For mixtures, hazard category was identified based on the classification criteria for mixtures.

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Mutagenicity:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Carcinogenicity:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Reproductive toxicity:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Single exposure:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Multi exposure:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory toxic:	No Classification For mixtures, hazard category was identified based on the classification criteria for mixtures.
Other information:	No information for mixtures.

Ingredient
Base Oil(s)

Acute toxicity (oral):	No Classification LC50:＞ 5000 mg/kg[rat]
Acute toxicity (dermal):	No Classification LC50:＞ 5000 mg/kg[rat]
Acute toxicity (inhalation):	Exempt classification (Gas) Exempt classification (Vapour) No Classification (Dust/Mist) LC50:＞ 5 mg/L[rat]
Skin corrosion/irritation:	No Classification
Serious eye damage/irritation:	No Classification Practically None
Respiratory sensitization:	Classification not possible
Skin sensitization:	No Classification None Buehler method [guinea pig]
Mutagenicity:	No Classification Ames Test:Negative
Carcinogenicity:	No Classification EU:Category 2：R45 need not apply.(NOTE L is Applicable), IARC:3
Reproductive toxicity:	No Classification
Target organ effect/Single exposure:	No Classification

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Target organ effect/Multi exposure:	No Classification
Respiratory toxic:	No Classification

Isooctadecanoic acid, reaction products with tetraethylenepentamine

Acute toxicity (oral):	LD50:＞ 5000 mg/kg[rat]
Acute toxicity (dermal):	LD50:＞ 2000 mg/kg[rabbit]

12. Ecological information

Product

Ecotoxicity	
Acute toxicity:	Classification not possible
Fish acute toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Daphnia acute toxicity:	No information.
Algae acute toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Chronic toxicity:	Classification not possible
Fish chronic toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Daphnia chronic toxicity:	No information.
Algae chronic toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Persistence and degradability :	No information available on mixtures
Bioaccumulative potential :	No information for mixtures.
Mobility in soil:	No information for mixtures.
Dangerous for the ozone layer:	Classification not possible
Other impact :	No information for mixtures.

Ingredient

Base Oil(s)

Ecotoxicity	
Acute toxicity:	No Classification
Fish acute toxicity:	96hLC50:＞ 5000 mg/L[Oncorhynchus mykiss]
Daphnia acute toxicity:	48hEC50:＞ 1000 mg/L[Daphnia magna]
Chronic toxicity:	No Classification
Dangerous for the ozone layer:	Classification not possible

13. Disposal considerations

Disposal methods: Dispose of contents/container in accordance with local/regional/national/international regulations.

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Every customer/user of the product should dispose of industrial waste on its own responsibility, otherwise it must rely on a company authorized by prefectural governor for treating industrial waste or a local public body involved in the disposal of industrial waste for proper disposal.

Before disposal of used container, remove contents completely.

14. Transport information

IATA	UN number:	Not regulated
	Proper shipping name:	Not regulated
	Packing group:	Not regulated
IMDG	UN number:	Not regulated
	Proper shipping name:	Not regulated
	Packing group:	Not regulated
Domestic restriction:		No information.
Specific security precaution and condition of transportation:		Transport containers without causing any significant friction or shaking.

15. Regulatory information

Australia(AICS) :	One or more components are not listed.
Canada(DSL) :	One or more components are not listed.
China(IECSC) :	One or more components are not listed.
EU(REACH) :	In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
Korea(KECL) :	One or more components are not listed.
New Zealand(NZIoC) :	One or more components are not listed.
Philippines(PICCS) :	One or more components are not listed.
Taiwan(TCSI) :	One or more components are not listed.
USA(TSCA) :	One or more components are not listed.

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16. Other information

NFPA	Health hazard rating blue:0,Flammability hazard rating:1
HMIS	Health Ratings:0,Flammability Ratings:1
Date Prepared:	2021/12/01
Reference	No information.
Disclaimer:	We at ENEOS Corporation have prepared the copyrighted Safety Data Sheet to provide reference information on the hazardous chemical product of interest for our customers/users to ensure secure and safe handling. We would like every customer/user of the product to refer to the information and understand the necessity of taking appropriate measures for the actual handling conditions on their own responsibilities for optimum practical application of the product of interest. Consequently, the Safety Data Sheet is not intended to guarantee the safety of the product referenced to herein.