SAFETY DATA SHEET

Q8 Auto 14



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : Q8 Auto 14

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

Material uses : Lubricating oil for automotive transmissions

1.3 Details of the supplier of the safety data sheet

Supplier: Kuwait Petroleum Companies in the Benelux

Company Office: Brusselstraat 59, 2018 Antwerp, Belgium Contactaddress: Petroleumkaai 7, 2020 Antwerp, Belgium

Tel. +32 3 247 38 11, Fax +32 3 216 03 42

Manufacturer / Distributor : Kuwait Petroleum Belgium N.V./S.A. / Q8Oils Italia S.r.l.

Petroleumkaai 7 Via Volpedo 2

B-2020 Antwerp 15050 Castellar Guidobono (AL)

Belgium Italy

e-mail address of person

responsible for this SDS : SDSinfo@Q8.com, communication preferably in English only.

PCN Information contact : PCNinfo@Q8.com, communication preferably in English only.

1.4 Emergency telephone number

Europe : +44 (0) 1235 239 670

Global (English only) : +44 (0) 1865 407 333

National advisory body/Poison Center

Belgium : Poison Centre : +32 (0)70 245 245

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

AQUATIC HAZARD (LONG-TERM) Category 3 H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown :

toxicity

: None.

Ingredients of unknown

ecotoxicity

: None.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

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SECTION 2: Hazards identification

General: P103 - Read carefully and follow all instructions.

P102 - Keep out of reach of children.

P101 - If medical advice is needed, have product container or label at hand.

Prevention: P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Supplemental label

elements

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and

: Not applicable.

articles

Detergents - Regulation

(EC) No 648/2004

: Not applicable.

Special packaging requirements

Containers to be fitted

with child-resistant

: Not applicable.

fastenings

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII This mixture does not contain any substances that are assessed to be a PBT or a

VPVB.

Other hazards which do not result in classification

: Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Severely refined mineral oil (C15 - C50) - Not classified.	CAS: *	≥75 - ≤90	Not classified.	-	[2]
Distillates (petroleum), hydrotreated light naphthenic	REACH #: 01-2119480375-34 EC: 265-156-6 CAS: 64742-53-6 Index: 649-466-00-2	≤10	Asp. Tox. 1, H304	-	[1] [2]
Severely refined mineral oil (C15 - C50) - H304	CAS: *	≤10	Asp. Tox. 1, H304	-	[1] [2]
1-(tert-dodecylthio)propan- 2-ol	REACH #: 01-2119953277-30 EC: 266-582-5 CAS: 67124-09-8	≤1	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Skin Sens. 1, H317: C ≥ 14.2% M [Acute] = 1 M [Chronic] = 1	[1]
2,2'-(C16-18 (evennumbered, C18	REACH #: 01-2119510877-33	<0.1	Acute Tox. 4, H302 Skin Corr. 1C, H314	ATE [Oral] = 500 mg/kg	[1]

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SECTION 3: Composition/information on ingredients

unsaturated) alkyl imino) diethanol	EC: 620-540-6 CAS: 1218787-32-6		Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 10 M [Chronic] = 1	
toluene	REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	≤0.1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 See Section 16 for the full text of the H statements declared above.	-	[1] [2]

Contains one or more of the following:

CAS: 64742-54-7, EC: 265-157-1, EU REACH: 01-2119484627-25 CAS: 64742-55-8, EC: 265-158-7, EU REACH: 01-2119487077-29 CAS: 64742-56-9, EC: 265-159-2, EU REACH: 01-2119480132-48 CAS: 64742-65-0, EC: 265-169-7, EU REACH: 01-2119471299-27

The mineral base oils contained in this product are severely refined and contain less than 3% DMSO extract according to IP 346 method, and are therefore not classified as carcinogen according to Regulation (EC) No 1272/2008, note L.

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of 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 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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.

Skin contact

: Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. 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. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. 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.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

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SECTION 4: First aid measures

Over-exposure signs/symptoms

Eye contact : No specific data. Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:

> dryness cracking

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).

Unsuitable extinguishing

media

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful 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 combustion products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters

Special protective

equipment 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.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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. 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".

6.2 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.

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SECTION 6: Accidental release measures

6.3 Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

: See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. 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.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. 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. 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
Severely refined mineral oil (C15 - C50) - Not	Limit values (Belgium, 5/2021). []
classified.	TWA: 5 mg/m³ 8 hours. Form: mist
	STEL: 10 mg/m³ 15 minutes. Form: mist
	EU OEL (Europe).
	TWA: 5 mg/m³ 8 hours. Form: Mist
	STEL: 10 mg/m³ 15 minutes. Form: Mist
Distillates (petroleum), hydrotreated light	Limit values (Belgium, 5/2021). []
naphthenic	TWA: 5 mg/m³ 8 hours. Form: mist
	STEL: 10 mg/m³ 15 minutes. Form: mist
	EU OEL (Europe).
	TWA: 5 mg/m³, (oil Mist)
Severely refined mineral oil (C15 - C50) - H304	Limit values (Belgium, 5/2021). []
	TWA: 5 mg/m³ 8 hours. Form: mist
	STEL: 10 mg/m³ 15 minutes. Form: mist
	EU OEL (Europe).
	TWA: 5 mg/m ³ 8 hours. Form: Mist
	STEL: 10 mg/m³ 15 minutes. Form: Mist
toluene	Limit values (Belgium, 5/2021). Absorbed through skin.
	TWA: 20 ppm 8 hours.
	TWA: 77 mg/m³ 8 hours.
	STEL: 100 ppm 15 minutes.
	STEL: 384 mg/m³ 15 minutes.
	EU OEL (Europe, 10/2019). Absorbed through skin. Notes: list
	of indicative occupational exposure limit values
	TWA: 192 mg/m³ 8 hours.
	TWA: 50 ppm 8 hours.
	STEL: 384 mg/m³ 15 minutes.
	STEL: 100 ppm 15 minutes.

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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
istillates (petroleum), hydrotreated light naphthenic	DNEL	Long term Oral	0.74 mg/ kg bw/day	General population	Systemic
3	DNEL	Long term Dermal	0.97 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m³	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m ³		Systemic
	DNEL	Long term Inhalation	5.58 mg/m³	Workers	Local
1-(tert-dodecylthio)propan-2-ol	DNEL	Long term Oral	0.84 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.67 mg/ kg bw/day	General population	Systemic
	DNEL	Long term	2.9 mg/m ³	General	Systemic

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SECTION 8: Exposure controls/personal protection

SECTION 6. Exposure con	<u> 0.0, p</u>	oroonar proto	<u> </u>		
		Inhalation		population	
	DNEL	Long term Dermal	3.34 mg/	Workers	Systemic
			kg bw/day		
	DNEL	Long term	11.8 mg/m ³	Workers	Systemic
		Inhalation			
	DNEL	Short term Dermal	0.1077 mg/	General	Local
			cm ²	population	
	DNEL	Short term Dermal	0.2154 mg/	Workers	Local
			cm ²		
2,2'-(C16-18 (evennumbered, C18	DNEL	Long term Oral	0.214 mg/	General	Systemic
unsaturated) alkyl imino) diethanol			kg bw/day	population	
	DNEL	Long term Dermal	0.214 mg/	General	Systemic
			kg bw/day	population	
	DNEL	Long term Dermal	0.3 mg/kg	Workers	Systemic
			bw/day		
	DNEL	Long term	0.745 mg/	General	Systemic
		Inhalation	m³	population	
	DNEL	Long term	2.112 mg/	Workers	Systemic
	DATE	Inhalation	m³		
toluene	DNEL	Long term Oral	8.13 mg/	General	Systemic
	DAIEI	1 4	kg bw/day	population	Land
	DNEL	Long term	56.5 mg/m ³		Local
	DNEL	Inhalation	56.5 mg/m ³	population General	Systemic
	DINEL	Long term Inhalation	30.5 mg/m	population	Systemic
	DNEL	Long term	192 mg/m³	Workers	Local
	DINEL	Inhalation	192 1119/111	WOIKEIS	Lucai
	DNEL	Long term	192 mg/m³	Workers	Systemic
	DIVLL	Inhalation	132 1119/111	VVOINCIS	Cystonio
	DNEL	Long term Dermal	226 mg/kg	General	Systemic
	J. 1.L.	Long tomic Domical	bw/day	population	5,01011110
	DNEL	Short term	226 mg/m ³	General	Local
		Inhalation	,	population	
	DNEL	Short term	226 mg/m ³	General	Systemic
		Inhalation]	population	
	DNEL	Long term Dermal	384 mg/kg	Workers	Systemic
			bw/day		_
	DNEL	Short term	384 mg/m ³	Workers	Local
		Inhalation			
	DNEL	Short term	384 mg/m ³	Workers	Systemic
		Inhalation	_		
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PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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. 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: safety glasses with side-shields.

Skin protection

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SECTION 8: Exposure controls/personal 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. Wear suitable gloves tested to EN374. Recommended: < 1 hour (breakthrough time): nitrile rubber 0.17 mm. Provide employee with skin care programmes.

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.

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. Recommended: Boiling point > 65 °C: A1; Boiling point < 65 °C: AX1: Hot material: A1P2.

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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. [Oily liquid.]

Appearance : Clear.
Color : Red.

Odor : Hydrocarbon.
Odor threshold : Not available.
Melting point/freezing point : Not applicable.

Pour point : <-40°C (<-40°F) [ASTM D 97]

Initial boiling point and

boiling range

: >300°C (>572°F)

Flammability : Not applicable.

Lower and upper explosion : Not available.

limit

Flash point : Closed cup: >170°C (>338°F) [ASTM D 93]

Auto-ignition temperature : >300°C (>572°F)

Decomposition temperature : >300°C

pH : Not applicable.

Viscosity : Kinematic (40°C (104°F)): 35.9 mm²/s (35.9 cSt) [ASTM D 445]

Kinematic (100°C (212°F)): 7.4 mm²/s (7.4 cSt) [ASTM D 445]

Solubility(ies)

Media	Result
cold water	Not soluble
hot water	Not soluble

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SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/ : Not applicable.

water

Vapor pressure : <0.01 kPa (<0.075006 mm Hg)

Density : 0.86 g/cm³ [15°C (59°F)] [ASTM D 4052]

Vapor density : Not available.

Explosive properties : Not applicable.

Oxidizing properties : Not applicable.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

Not available.

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 : The product is stable.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : Reactive or incompatible with the following materials:

Strong oxidizing materials

10.6 Hazardous

decomposition products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Severely refined mineral oil	LC50 Inhalation Dusts and	Rat - Male,	5.53 mg/l	4 hours
(C15 - C50) - Not classified.	mists	Female		
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), hydrotreated light naphthenic	LC50 Inhalation Dusts and mists	Rat	2180 mg/m³	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
Severely refined mineral oil (C15 - C50) - H304	LC50 Inhalation Dusts and mists	Rat - Male, Female	5.53 mg/l	4 hours
,	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
1-(tert-dodecylthio)propan- 2-ol	LD50 Oral	Rat	>5 g/kg	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-

Conclusion/Summary

: Not available.

Acute toxicity estimates

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SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Severely refined mineral oil (C15 - C50) - Not classified.	N/A	N/A	N/A	N/A	5.53
Severely refined mineral oil (C15 - C50) - H304	N/A	N/A	N/A	N/A	5.53
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	500	N/A	N/A	N/A	N/A
toluene	N/A	N/A	N/A	49	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Severely refined mineral oil (C15 - C50) - Not classified.	Eyes - Iris lesion	Rabbit	0	48 hours	72 hours
	Eyes - Redness of the conjunctivae	Rabbit	0.33	48 hours	72 hours
	Skin - Edema	Rabbit	0	72 hours	7 days
	Skin - Erythema/Eschar	Rabbit	0.17	72 hours	7 days
Severely refined mineral oil (C15 - C50) - H304	Eyes - Iris lesion	Rabbit	0	48 hours	72 hours
	Eyes - Redness of the conjunctivae	Rabbit	0.33	48 hours	72 hours
	Skin - Edema	Rabbit	0	72 hours	7 days
	Skin - Erythema/Eschar	Rabbit	0.17	72 hours	7 days
toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Conclusion/Summary

: Not available.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Severely refined mineral oil (C15 - C50) - Not classified.	skin	Guinea pig	Not sensitizing
Severely refined mineral oil (C15 - C50) - H304	skin	Guinea pig	Not sensitizing

Conclusion/Summary

: Not available.

: Not available.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Severely refined mineral oil (C15 - C50) - Not classified.	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative
Severely refined mineral oil (C15 - C50) - H304	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative

Conclusion/Summary

Carcinogenicity

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SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Severely refined mineral oil (C15 - C50) - Not classified.	Negative - Dermal - TC	Mouse - Female	-	78 weeks
Severely refined mineral oil (C15 - C50) - H304	Negative - Dermal - TC	Mouse - Female	-	78 weeks

Conclusion/Summary

: Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Severely refined mineral oil (C15 - C50) - Not classified.	Negative	Negative	Negative	Rat - Male, Female	Oral: 1000 mg/ kg	-
Severely refined mineral oil (C15 - C50) - H304	Negative	Negative	Negative	,	Oral: 1000 mg/ kg	-

Conclusion/Summary

: Not available.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Severely refined mineral oil (C15 - C50) - Not classified.	Negative - Dermal	Rat	2000 mg/kg	7 days per week
Severely refined mineral oil (C15 - C50) - H304	Negative - Dermal	Rat	2000 mg/kg	7 days per week

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
toluene	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Muene	Category 2	-	-

Aspiration hazard

Product/ingredient name	Result	
Distillates (petroleum), hydrotreated light naphthenic Severely refined mineral oil (C15 - C50) - H304 toluene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1	

Information on the likely routes of exposure

: Not available.

Potential acute health effects

Eye contactInhalationNo known significant effects or critical hazards.No known significant effects or critical hazards.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.

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SECTION 11: Toxicological information

Skin contact: Adverse symptoms may include the following:

irritation dryness cracking

Ingestion : No specific data.

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

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects

: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Severely refined mineral oil (C15 - C50) - Not classified.	Sub-acute LOAEL Oral	Rat - Male	125 mg/kg	13 weeks; 5 hours per day
,	Sub-chronic NOAEL Oral	Rat - Male, Female	≥2000 mg/kg	13 weeks; 5 days per week
	Sub-acute NOAEL Inhalation Vapor	Rat - Male	>980 mg/m ³	4 weeks; 5 days per week
Severely refined mineral oil (C15 - C50) - H304	Sub-acute LOAEL Oral	Rat - Male	125 mg/kg	13 weeks; 5 hours per day
	Sub-chronic NOAEL Oral	Rat - Male, Female	≥2000 mg/kg	13 weeks; 5 days per week
	Sub-acute NOAEL Inhalation Vapor	Rat - Male	>980 mg/m³	4 weeks; 5 days per week

Conclusion/Summary

: Not available.

General

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/

or dermatitis.

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Severely refined mineral oil (C15 - C50) - Not classified.	Acute NEL >100 mg/l Fresh water	Algae	72 hours
Severely refined mineral oil (C15 - C50) - H304	Acute NEL >10000 mg/l Fresh water Acute NEL ≥100 mg/l Fresh water Chronic NEL 10 mg/l Fresh water Acute NEL >100 mg/l Fresh water Acute NEL >10000 mg/l Fresh water	Daphnia - Daphnia Magma Fish - Pimephales promelas Daphnia - Daphnia magna Algae Daphnia - Daphnia Magma	48 hours 96 hours 21 days 72 hours

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SECTION 12: Ecological information

	Acute NEL ≥100 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NEL 10 mg/l Fresh water	Daphnia - Daphnia magna	21 days
toluene	Acute EC50 >433 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 μg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 μg/l Fresh water	Fish - Oncorhynchus kisutch -	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Conclusion/Summary: Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Severely refined mineral oil (C15 - C50) - Not classified.	-	-	Inherent
Severely refined mineral oil (C15 - C50) - H304	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	3.6	-	low
toluene	2.73	90	low

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

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SECTION 13: Disposal considerations

Methods of disposal

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.

Hazardous waste

Yes.

European waste catalogue (EWC)

Waste code	Waste designation
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils

Packaging

Methods of disposal

: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

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

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

user

14.6 Special precautions for : 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.

14.7 Maritime transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

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SECTION 15: Regulatory information

None of the components are listed.

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Germany

Hazard class for water : 2

(WGK)

Switzerland

VOC content : Exempt.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

Canada : All components are listed or exempted.China : All components are listed or exempted.

Eurasian Economic Union : Russian Federation inventory: Not determined.

Japan inventory (CSCL): Not determined.

Japan inventory (ISHL): Not determined.

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SECTION 15: Regulatory information

New Zealand: All components are listed or exempted.Philippines: All components are listed or exempted.Republic of Korea: All components are listed or exempted.Taiwan: All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States of America : All components are active or exempted.

Viet Nam : Not determined.

15.2 Chemical Safety Assessment

• Phis product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: MDN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road

ASTM = American Society for Testing and Materials

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DIN = German Institute for Standardization DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EC = European Commission

EC50 = Half maximal effective concentration

EN = European Standard (Norm)

EUH statement = CLP-specific Hazard statement

GHS - Globally Harmonized System of Classification and Labeling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IC50 = Half maximal inhibitory concentration IMDG = International Maritime Dangerous Goods IMO = International Maritime Organisation

ISO = International Organization for Standardization

LC50 = Median lethal concentration

LD50 = Median lethal dose

LOAEL / LOAEC = Lowest Observed Adverse Effect Level / Concentration MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

NOAEL / NOAEC = No Observed Adverse Effect Level / Concentration

NOEL / NOEC = No Observed Effect Level / Concentration

OECD = Organisation for Economic Co-operation and Development

OEL = Occupational Exposure Limit

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

Regulation [Regulation (EC) No. 1907/2006]

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS = Safety Data Sheet

SVHC = Substances of Very High Concern

STEL = Short Term Exposure Limit TLV = Threshold Limit Value

TWA = Time Weighted Average

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SECTION 16: Other information

UFI = Unique Formula Identifier

UN = United Nations

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

The mineral base oils contained in this product are severely refined and contain less than 3% DMSO extract according to IP 346 method, and are therefore not classified as carcinogen according to Regulation (EC) No 1272/2008, note L.

Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

Full text of abbreviated H statements

⊬ 225	Highly flammable liquid and vapor.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Cute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Training advice : Ensure operatives are trained to minimise exposures.

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Prepared by : Kuwait Petroleum Research & Technology B.V., The Netherlands

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SECTION 16: Other information

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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