SAFETY DATA SHEET
JLM GDI Injector Cleaner #J03170

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

1.1 Product identifier

Product name : JLM Petrol GDI Injector Cleaner
Product code : J03170
Internal code : J03170
Product description : Mixture
Product type : Liquid.

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

Identified uses

Petrochemical industry: Fuel additive.

1.3 Details of the supplier of the safety data sheet

Supplier : JLM Lubricants B.V.
Schiphol Boulevard 127
1118 BG Schiphol
The Netherlands

Telephone no.: : +31 (0) 20 201 4995
Fax no. :
e-mail address of person responsible for this SDS : info@jlmlubricants.com
NON-emergency enquiries : info@jlmlubricants.com

1.4 Emergency telephone number

+31 (0) 20 201 4995

The main regional centres are listed here in Section 1. Other local contact numbers for specific language support in Asia Pacific are listed in Section 16.

Country information	Emergency telephone number	Location
Europe (all countries, all languages)	: +31 (0) 20 201 4995	
Middle East, Africa (Arabic, French, English)	: +31 (0) 20 201 4995	
Middle East, Africa (French, Portuguese, English)	: +31 (0) 20 201 4995	
Asia Pacific (all countries except China)	: +31 (0) 20 201 4995	
China	: +31 (0) 20 201 4995	
South America (all countries except Brazil and Mexico)	: +31 (0) 20 201 4995	

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

Brazil	:	+31 (0) 20 201 4995
Mexico	:	+31 (0) 20 201 4995

Country information	:	**Emergency telephone number**
USA	:	+31 (0) 20 201 4995
Canada, Puerto Rico, Virgin Islands	:	+31 (0) 20 201 4995
	:	

See section 16.

Indicates information that has changed from previously issued version.

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]

Asp. Tox. 1, H304

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

Hazard pictograms :

Signal word : Danger

Hazard statements : H304 - May be fatal if swallowed and enters airways.

Supplemental label elements : Not applicable.

Precautionary statements

General : Not applicable.

Prevention : Not applicable.

Response : P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

Storage : P405 - Store locked up.

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

Hazardous ingredients : Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

SECTION 2: Hazards identification

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]	REACH #: 01-2119456620-43 EC: 265-149-8 [926-141-6] CAS: 64742-47-8 Index: 649-422-00-2	≥75 - ≤90	Asp. Tox. 1, H304 EUH066	[1] [2]
2-ethylhexan-1-ol	REACH #: 01-2119487289-20 EC: 203-234-3 CAS: 104-76-7	≤8.2	Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1] [2]
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	REACH #: 01-2119951823-33 EC: 271-653-9 CAS: 68603-38-3	≤1.7	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 **See Section 16 for the full text of the H statements declared above.**	[1]

Additional information

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern

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

Our REACH (pre-) registrations DO NOT cover the following:
1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations
Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- In the case of importation only, to make use of the "Only Representative" provisions, if available.

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 if irritation occurs.

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. 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.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

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

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

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.

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

5.3 Advice for firefighters

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.

SECTION 5: Firefighting measures

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. 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised 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 spilt 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).

6.3 Methods and material 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 the 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 spilt 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 swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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.

SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Storage : Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

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).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light] 2-ethylhexan-1-ol	**EU OEL (Europe, 2009).** Supplier's information Reciprocal Calculation Procedure (RCP) : 1200 mg/m³ 8 hours. **EU OEL (Europe, 12/2017). Notes: list of indicative occupational exposure limit values** TWA: 1 ppm 8 hours. TWA: 5.4 mg/m³ 8 hours.

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
2-ethylhexan-1-ol	DNEL	Short term Inhalation	106.4 mg/m³	Workers	Local
	DNEL	Long term Dermal	23 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	53.2 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	53.2 mg/m³	Consumers	Local
	DNEL	Long term Dermal	11.4 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term	2.3 mg/m³	Consumers	Systemic

SECTION 8: Exposure controls/personal protection

		Inhalation			
	DNEL	Long term Oral	1.1 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	12.8 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	26.6 mg/m³	Consumers	Local
	DNEL	Short term Inhalation	26.6 mg/m³	Consumers	Local
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	DNEL	Long term Inhalation	73 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	4.16 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	21.73 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	2.5 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	6.25 mg/kg bw/day	Consumers	Systemic

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
2-ethylhexan-1-ol	PNEC	Fresh water	0.017 mg/l	-
	PNEC	Marine	0.0017 mg/l	-
	PNEC	Sewage Treatment Plant	10 mg/l	-
	PNEC	Fresh water sediment	0.28 mg/kg dwt	-
	PNEC	Marine water sediment	0.028 mg/kg dwt	-
	PNEC	Soil	0.047 mg/kg dwt	-
	PNEC	Intermittent release	0.17 mg/l	-
	PNEC	Marine water	0.002 mg/l	-
	PNEC	Secondary Poisoning	55 mg/kg	-
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	-	Fresh water	0.007 mg/l	-
	-	Fresh water sediment	0.973 mg/kg dwt	-
	-	Marine water	0.0007 mg/l	-
	-	Marine water sediment	0.0973 mg/kg dwt	-
	-	Sewage Treatment Plant	830000 mg/l	-
	-	Soil	0.038 mg/kg dwt	-

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

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.

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.

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Amber.

Odour : Not available.

Odour threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range : Lowest known value: 185°C (365°F) (2-ethylhexan-1-ol). Weighted average: 230.25°C (446.4°F)

Flash point : Closed cup: 76.1°C (169°F)

Evaporation rate : 0.02 (2-ethylhexan-1-ol) compared with butyl acetate

Flammability (solid, gas) : Not available.

Burning time : Not applicable.

Burning rate : Not applicable.

Upper/lower flammability or explosive limits : Greatest known range: Lower: 0.79% Upper: 12.7% (2-ethylhexan-1-ol)

Vapour pressure : Highest known value: 0.05 kPa (0.4 mm Hg) (at 20°C) (Distillates (petroleum), hydrotreated light). Weighted average: 0.05 kPa (0.38 mm Hg) (at 20°C)

Vapour density : Highest known value: 4.49 (Air = 1) (2-ethylhexan-1-ol). Weighted average: 1.39 (Air = 1)

Relative density : Not available.

Density : 0.8224 g/cm³ [15°C (59°F)]

Solubility(ies) : Insoluble in the following materials: cold water, hot water, methanol, diethyl ether.

Partition coefficient: n-octanol/water : Not available.

SECTION 9: Physical and chemical properties

Auto-ignition temperature : Lowest known value: >230°C (>446°F) (Distillates (petroleum), hydrotreated light).

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): 0.02739 cm^2/s (2.739 cSt)

Explosive properties : Not available.

Oxidising properties : Not available.

9.2 Other information

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 : No specific data.

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 toxicological effects

Acute toxicity

Product/ingredient name	Test	Species	Result type	Dose	
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]	OECD 403 Acute Inhalation Toxicity	Rat	LC50 Inhalation Vapour	>5000 mg/m³	8 hours
	OECD 402 Acute Dermal Toxicity	Rabbit	LD50 Dermal	>5000 mg/kg	-
	OECD 401 Acute Oral Toxicity	Rat	LD50 Oral	>5000 mg/kg	-
2-ethylhexan-1-ol	OECD 403 Acute Inhalation Toxicity	Rat - Male, Female	LC50 Inhalation Dusts and mists	<5.3 mg/l	4 hours
	OECD 403 Acute Inhalation Toxicity	Rat - Male, Female	LC50 Inhalation Vapour	>0.89 mg/l	4 hours
	OECD 402 Acute Dermal Toxicity	Rat - Male, Female	LD50 Dermal	>3000 mg/kg	-
	OECD 401 Acute Oral Toxicity	Rat - Male	LD50 Oral	2047 mg/kg	-
Amides, C16-18 and C18-unsatd., N,N-bis (hydroxyethyl)	OECD 401 Acute Oral Toxicity	Rat	LD50 Oral	>3000 mg/kg	-

SECTION 11: Toxicological information

Acute toxicity estimates (ATE)

Route	ATE value
Inhalation (vapours)	147.2 mg/l
Inhalation (dusts and mists)	20.07 mg/l

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
2-ethylhexan-1-ol	-	Rabbit	Eyes - Moderate irritant -
	-	Rabbit	Eyes - Severe irritant -
	-	Rabbit	Skin - Moderate irritant -
Amides, C16-18 and C18-unsatd., N,N-bis (hydroxyethyl)	-	Rabbit	Skin - Moderate irritant -
	-	Rabbit	Eyes - Moderate irritant -

Sensitisation

Product/ingredient name	Test	Species	Result
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]	-	Rat	Not sensitizing -
2-ethylhexan-1-ol	-	Guinea pig	Not sensitizing -
Amides, C16-18 and C18-unsatd., N,N-bis (hydroxyethyl)	OECD 406 Skin Sensitization	Guinea pig	Not sensitizing -

Potential chronic health effects

Product/ingredient name	Test	Species	Result	Dose
2-ethylhexan-1-ol	OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat - Male, Female	NOEL	125 mg/kg
	OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat - Male, Female	NOAEL	250 mg/kg
	OECD 413 Subchronic Inhalation Toxicity: 90-day Study	Rat - Male, Female	NOAEC	120 ppm

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]	-	Experiment: In vivo Subject: Bacteria	Negative
2-ethylhexan-1-ol	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: with and without	Negative
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: with and without	Negative
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: with and without	Negative

SECTION 11: Toxicological information

Amides, C16-18 and C18-unsatd., N,N-bis (hydroxyethyl)	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD	Experiment: In vitro Subject: Mammalian-Animal	Negative

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

General : No known significant effects or critical hazards.

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

SECTION 12: Ecological information

Product/ingredient name	Test	Species	Exposure	Result
2-ethylhexan-1-ol	-	Algae	72 hours	Acute EC50 11.5 mg/l
	-	Daphnia - Daphnia	48 hours	Acute EC50 39 mg/l
Amides, C16-18 and C18-unsatd., N,N-bis (hydroxyethyl)	OECD 202 Daphnia sp. Acute Immobilisation Test	Daphnia	48 hours	Acute EC50 1 to 10 mg/l
	OECD 203 Fish, Acute Toxicity Test	Fish - Trout - Oncorhynchus mykiss	96 hours	Acute LC50 1 to 10 mg/l
	OECD 211 Daphnia Magna Reproduction Test	Daphnia	21 days	Chronic NOEC 0.01 to 0.1 mg/l

12.2 Persistence and degradability

Product/ingredient name	Test	Result
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]	OECD 301F Ready Biodegradability - Manometric Respirometry Test	69 % - Readily - 28 days
2-ethylhexan-1-ol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	79 to 99.9 % - Readily - 14 days
	OECD 301F Ready Biodegradability - Manometric Respirometry Test	>60 % - Readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]	-	-	Readily
2-ethylhexan-1-ol	-	-	Readily
Amides, C16-18 and C18-unsatd., N,N-bis (hydroxyethyl)	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Hydrocarbons, C11-14, n-alkanes, isoalkanes, cyclics, <2% aromatics [Distillates (petroleum), hydrotreated light]	6 to 8	-	high
2-ethylhexan-1-ol	2.3 to 3.1	25.33	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

SECTION 12: Ecological information

vPvB : Not applicable.

12.6 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

Methods of disposal : The generation of waste should be avoided or minimised 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 : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN 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.
Additional information	-	-	-	
14.6 Special precautions for user				
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code				

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 authorisation

Substances of very high concern

None of the components are listed.

Not applicable.

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

Other EU regulations

Black List Chemicals : Not listed

Priority List Chemicals : Not determined

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

International lists

Australia inventory (AICS) : At least one component is not listed.

Canada inventory : All components are listed or exempted.

China inventory (IECSC) : All components are listed or exempted.

EU Inventory (EINECS/ ELINCS/NLP) : All components are listed or exempted.

Japan inventory (ENCS) : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.

Korea inventory (KECI) : All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC) : All components are listed or exempted.

SECTION 15: Regulatory information

Philippines inventory (PICCS) : All components are listed or exempted.

Taiwan inventory (TCSI) : All components are listed or exempted.

United States inventory (TSCA 8b) : All components are listed or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

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

Classification	Justification
Asp. Tox. 1, H304	Calculation method

Full text of abbreviated H statements :

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] :

Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Aquatic Chronic 2, H411	LONG-TERM AQUATIC HAZARD - Category 2
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

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Emergency contact numbers for local language support in Asia Pacific region

Country information	Languages supported	Telephone no.:	Location
Australia	English	+31 (0) 20 201 4995	Australia
Bangladesh	Bengali, English	+31 (0) 20 201 4995	Singapore
China	Mandarin, English	+31 (0) 20 201 4995	Beijing China
India	Hindi, English	+31 (0) 20 201 4995	Singapore

SECTION 16: Other information

India (local toll free number)	Hindi, English	+31 (0) 20 201 4995
Indonesia (local toll free number)	Bahasa Indonesian, English	*+31 (0) 20 201 4995*
Japan	Japanese, English	+31 (0) 20 201 4995
Korea	Korean, English	+31 (0) 20 201 4995
Malaysia	Bahasa Malaysian, English	+31 (0) 20 201 4995
New Zealand	English	+31 (0) 20 201 4995
Pakistan	Urdu, English	+31 (0) 20 201 4995
Philippines	Tagalog, English	+31 (0) 20 201 4995
Sri Lanka	Sinhalese, English	+31 (0) 20 201 4995
Thailand (local toll free number)	Thai, English	+31 (0) 20 201 4995
Vietnam	Vietnamese, English	++31 (0) 20 201 4995

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