

AZOLLA AL 22

SDS # : 37053

Date of previous revision : 2022/05/16

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

1.1 Product identifier

Product name : AZOLLA AL 22

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

Identified uses
 Hydraulic oil Formulation additives, lubricants and greases - Industrial General use of lubricants and greases in vehicles or machinery - Industrial General use of lubricants and greases in vehicles or machinery - Professional

1.3 Details of the supplier of the safety data sheet

TotalEnergies Lubrifiants
562 Avenue du Parc de L'île
92029 Nanterre Cedex FRANCE
Tél: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71
rm.msds-lubs@totalenergies.com

TotalEnergies Marketing Polska sp. z o.o.
Al. Jana Pawła II 80
00-175 Warszawa, Polska
Tel: +48 22 481 94 00
Fax: +48 22 481 94 01
ms.pl_reach@totalenergies.com

Contact

H.S.E

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number :  Emergency phone: +48 42 2538 400

Supplier

Telephone number : Emergency phone: +44 1235 239670

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 Chronic 3, H412

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

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

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 articles : Not applicable.

2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration $\geq 0,1$ %. This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

Other hazards which do not result in classification : Hazard of slipping on spilled product.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/substance	Identifiers	% (w/w)	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	REACH #: 01-2119827000-58 EC: 934-956-3 CAS: 64742-46-7*	≥ 75 - ≤ 90	Asp. Tox. 1, H304	-	[1]
2,6-di-tert-butyl-p-cresol	REACH #: 01-2119555270-46 EC: 204-881-4 CAS: 128-37-0	≤ 1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]

methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	<0.1	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1] [2]
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Additional information : Mineral oil of petroleum origin Product containing mineral oil with less than 3% DMSO extract as measured by IP 346 The product is made from synthetic base oils

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

The EC substance definition and related classification & labelling have been developed in the framework of the Regulation (EC) No 1907/2006 (REACH). The related CAS number* is used for the purpose of the international inventories present in section 15 of the SDS.

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 if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- 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.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

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

- Skin contact** : Adverse symptoms may include the following:
irritation
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, water spray (fog) or foam.
- 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** : carbon monoxide
carbon dioxide
nitrogen oxides
phosphorus 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.
- 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 spilled material. 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.

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

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 solutions** : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits



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Product/substance	Exposure limit values
methanol	Regulation of the Minister of Family, Labor and Social Policy of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021). Absorbed through skin. TWA: 100 mg/m³ 8 hours. STEL: 300 mg/m³ 15 minutes.

Reportable hazardous constituent(s) contained in UVCB and/or multi-constituent substance(s) complying with the classification criteria and/or with an exposure limit (OEL)

No exposure limit value known.

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.

Advisory OEL : Metalworking fluids: USA: NIOSH (REL) TWA 0.5 mg/m3 Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m3, NIOSH (REL) TWA 5 mg/m3, STEL 10 mg/m3, ACGIH (TLV) TWA 5 mg/m3 (highly refined)

DNELs/DMELs

Product/substance	Type	Exposure	Value	Population	Effects
2,6-di-tert-butyl-p-cresol	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.435 mg/m ³	General population	Systemic
	DNEL	Long term Oral	0.25 mg/kg	General population	Systemic
	DNEL	Long term Oral	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.435 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	1.76 mg/m ³	Workers	Systemic
methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Short term	26 mg/m ³	General	Local



	DNEL	Inhalation Long term	26 mg/m ³	population General	Local
	DNEL	Inhalation Short term	26 mg/m ³	population General	Systemic
	DNEL	Inhalation Long term	26 mg/m ³	population General	Systemic
	DNEL	Inhalation Short term	130 mg/m ³	Workers	Local
	DNEL	Inhalation Long term	130 mg/m ³	Workers	Local
	DNEL	Inhalation Short term	130 mg/m ³	Workers	Systemic
	DNEL	Inhalation Long term	130 mg/m ³	Workers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Name	Method Detail
2,6-di-tert-butyl-p-cresol	Fresh water	199 ng/l	-
	Marine water	19.9 ng/l	-
	Fresh water sediment	45819 µg/kg dwt	-
	Soil	53.9 µg/kg dwt	-
	Sewage Treatment Plant	17 µg/l	-
	Marine water sediment	45.82 µg/kg dwt	-
	Secondary Poisoning	16.67 mg/kg	-

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. EN 166

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Hydrocarbon-proof gloves
nitrile rubber
Fluorinated rubber
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

	In case of prolonged contact with the product, it is recommended to wear gloves complying with ISO 21420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency
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	: Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. In case of inadequate ventilation wear respiratory protection: Type A/P1. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.
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 (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Liquid. [limpid]
Color	: Not available.
Odor	: Characteristic.
Odor threshold	: Not available.
pH	: Not applicable. Product is non-soluble (in water).
Melting point/freezing point	: Technically not possible to measure
Initial boiling point and boiling range	: 316°C [EN ISO 3405]
Flash point	: Open cup: 130°C [Cleveland Open cup]
Evaporation rate	: Not available.
Flammability	: 30
Lower and upper explosion limit	: Lower: 0.9% Upper: 7%
Vapor pressure	: 0.013 kPa [ASTM D 5191]
Vapor density	: 2 [Air = 1]
Relative density	: 0.825 [ASTM D 4052]
Density	: 0.825 g/cm³ [15°C] [ASTM D 4052]
Solubility(ies)	:

Media	Result
Water	Not soluble

Miscible with water	: No.
Partition coefficient: n-octanol/ water	: 3.5



Auto-ignition temperature : 130°C [ASTM E 659]
 Decomposition temperature : Not applicable.
 Viscosity : Kinematic (40°C): 20.6 mm²/s [ISO 3104]

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

No other relevant physical and chemical parameters for the safe use of the product

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
- 10.5 Incompatible materials** : Strong oxidizing agents
strong acids
Strong bases
- 10.6 Hazardous decomposition products** : carbon monoxide
carbon dioxide
nitrogen oxides
phosphorus oxides

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Product/substance	Result	Species	Dose	Exposure	Test
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	LC50 Inhalation Dusts and mists	Rat	>5266 mg/m ³	4 hours	OECD 403
2,6-di-tert-butyl-p-cresol methanol	LD50 Dermal	Rabbit	>3160 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
	LD50 Dermal	Rat	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>6000 mg/kg	-	OECD 401
	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours	-
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours	-
	LC50 Inhalation Vapor	Rat	3 mg/l	4 hours	-
	LD50 Dermal	Rabbit	300 mg/kg	-	-
	LD50 Oral	Rat	100 mg/kg	-	-

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

Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
methanol	100	300	64000	3	N/A

Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
2,6-di-tert-butyl-p-cresol	Eyes - Cornea opacity	Rabbit	0	-	OECD 405
	Skin - Edema	Rabbit	0	4 hours	Read across OECD 404

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.
Eyes : Based on available data, the classification criteria are not met.
Respiratory : Based on available data, the classification criteria are not met.

Sensitization

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Teratogenicity

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

Specific target organ toxicity (single exposure)

Product/substance	Category	Route of exposure	Target organs
methanol	Category 1	-	-

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

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Product/substance	Result
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	ASPIRATION HAZARD - Category 1

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

Information on the 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 : 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.
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 effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : 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.
Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

11.2.2 Other information

SECTION 12: Ecological information

 Harmful to aquatic life with long lasting effects.

12.1 Toxicity

Product/substance	Result	Species	Exposure	Test
 Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	Acute EC50 10000 mg/l	Algae - Skeletonema costatum	72 hours	ISO 10253
	Acute EC50 3193 mg/l	Daphnia - Acartia tonsa	48 hours	ISO 14669
	Acute LC50 1028 mg/l	Fish	96 hours	-
	Chronic NOELR >1000 mg/l	Algae - Skeletonema costatum	21 days	-
	Chronic NOELR >1000 mg/l	Daphnia - Daphnia magna	21 days	-
	Chronic NOELR >1000 mg/l	Fish - Oncorhynchus	21 days	-



2,6-di-tert-butyl-p-cresol	I Fresh water	mykiss		
	Acute EC50 0.48 mg/l	Crustaceans - Daphnia magna	48 hours	OECD 202
	Acute EC50 1440 µg/l	Daphnia - Daphnia pulex - Neonate	48 hours	-
	Fresh water	Fish - Oryzias latipes	96 hours	OECD 203
	Acute LC50 1.1 mg/l	Algae - Desmodesmus subspicatus	72 hours	OECD 201
	Chronic EC10 0.4 mg/l	Daphnia - Daphnia magna	21 days	OECD 211
	Chronic NOEC 0.07 mg/l	Fish - Danio rerio	30 days	OECD 210
	Chronic NOEC 0.053 mg/l	Algae - Ulva pertusa	96 hours	-
	Acute EC50 16.912 mg/l	Crustaceans - Crangon crangon - Adult	48 hours	-
	Marine water	Daphnia - Daphnia magna - Neonate	48 hours	-
methanol	Acute LC50 2500000 µg/l	Fish - Danio rerio - Egg	96 hours	-
	Marine water	Algae - Ulva pertusa	96 hours	-
	Acute LC50 3289 mg/l			
	Fresh water			
	Acute LC50 290 mg/l			
	Fresh water			
	Chronic NOEC 9.96 mg/l			
	Marine water			

12.2 Persistence and degradability

Product/substance	Test	Result	Dose	Inoculum
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	OECD 306	74 % - Readily - 28 days	-	-
2,6-di-tert-butyl-p-cresol	OECD 301C	4.5 % - Not readily - 28 days	-	Activated sludge

Conclusion/Summary : Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	-	-	Readily
2,6-di-tert-butyl-p-cresol	-	-	Not readily

12.3 Bioaccumulative potential

Product/substance	LogK _{ow}	BCF	Potential
AZOLLA AL 22	>3.5	-	low
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	-	171	low
2,6-di-tert-butyl-p-cresol	5.1	1277	high
methanol	-0.77	<10	low

12.4 Mobility in soil

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

Mobility : Not available.

Mobility in soil : Given its physical and chemical characteristics, the product generally shows low soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited. Forms an emulsion.

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 in a concentration $\geq 0,1$ %.

12.6 Endocrine disrupting properties

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 13 01 10*

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	ICAO/IATA
14.1 UN number or ID number	Not regulated.	9006	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	-	-
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

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

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

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

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

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

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

National regulatory information

1. Act of 25 February 2011 on Chemical Substances and their Mixtures (Journal of Laws [Dz.U.] No. 63, Item 322, of 2011) as amended (Journal of Laws of 2015, Item 675) and ORDINANCE OF THE MARSHALL OF THE REPUBLIC OF POLAND of 24 November 2017 concerning announcement of a consolidated text of the Chemical Substances and their Mixtures Act (Journal of Laws [Dz.U.] of 17 January 2018, Item 143).2. REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (EC) NO. 1272/2008 of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Official Journal of the European Union, series L, No. 353, of 31 December 2008) as amended (adjustments to technical progress 1 - 13 ATP).3. Regulation of the Minister of Economy of 21 December 2005, concerning the essential requirements regarding individual protection measures (Journal of Laws [Dz. U.] No. 259 of 2005, Item 2173). 4. Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018, concerning the maximum admissible concentration and intensification of agents harmful to health in the work environment (Journal of Laws [Dz. U.] of 2018, Item 1286) 5. Regulation of the Minister of Health of 2 February 2011, concerning the testing and measurement of agents harmful to health in the work environment (Journal of Laws [Dz. U.] of 2011, No. 33, Item 166) 6. Notice of the Minister of Health of 9 September 2016 concerning promulgation of the consolidated text of the Regulation of the Minister of Health concerning occupational safety and hygiene in connection with presence of chemical agents at workplace (Journal of Laws [Dz. U.] of 2016, Item 1488)7. Government Statement of 26 July 2005 concerning entry into force of amendments to Annexes A and B of the European Agreement concerning the international carriage of dangerous goods by road (ADR) prepared in Geneva on 30 September 1957. (Journal of Laws [Dz. U.] No. 178, Item 1481, of 2005, as amended).8. Waste Act of 14 December 2012 (Journal of Laws [Dz. U.] Item 21, 2013, as amended)9. Act of 20 July 2018 on amendment of the Waste Act and certain other laws (Journal of Laws [Dz. U.] of 2018, Item 1592)10. Act of 13 June 2013 on management of packaging and packaging waste (Journal of Laws [Dz. U.] of 2013, Item 888).11. REGULATION OF THE MINISTER OF ENVIRONMENT of 9 December 2014 concerning catalogue of waste (Journal of Laws [Dz. U.] of 2014, Item 1923).12. Act of 29 July 2005 on amendment of the Waste Act and certain other laws (Journal of Laws [Dz. U.] of 175, Item 1458, 2005)13. Regulation (EC) 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European [...] Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union series L No. 396 of 30 December 2006, as amended)

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.

LU - Luxembourg prohibited chemicals in the workplace

Not listed.

Inventory list

Australia inventory (AIIC)	: All components are listed or exempted.
Canada inventory (DSL/NDL)	: All components are listed or exempted.
China inventory (IECSC)	: All components are listed or exempted.



Europe inventory (EC)	: ☒ All components are listed or exempted.
Japan inventory	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
Thailand inventory	: Not determined.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

15.2 Chemical Safety Assessment : See exposure scenarios

SECTION 16: Other information

☒ Indicates information that has changed from previously issued version.

Abbreviations and acronyms	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level DMEL = Derived Minimal Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic vPvB = Very Persistent and Very Bioaccumulative PNEC = Predicted No Effect Concentration LC50 = Median lethal concentration LD50 = Median lethal dose OEL = Occupational Exposure Limit VOC = Volatile Organic Compound UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material NOEC No Observed Effect Concentration QSAR = Quantitative Structure–Activity Relationship
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements



H225 H301 H304 H311 H331 H370 H400 H410 H412	Highly flammable liquid and vapor. Toxic if swallowed. May be fatal if swallowed and enters airways. Toxic in contact with skin. Toxic if inhaled. Causes damage to organs. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

Acute Tox. 3 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 3 Asp. Tox. 1 Flam. Liq. 2 STOT SE 1	ACUTE TOXICITY - Category 3 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
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Date of revision : 2022/11/02

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Version : 2

Notice to reader

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

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

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mixture
Code : 37053
Product name : AZOLLA AL 22

Section 1 - Title

Short title of the exposure scenario : Formulation additives, lubricants and greases - Industrial
List of use descriptors : **Identified use name:** Formulation additives, lubricants and greases - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02
Environmental contributing scenarios :
Health Contributing scenarios :

Processes and activities covered by the exposure scenario : Industrial formulation of lubricant additives, lubricants and greases. Includes material transfers, mixing, large and small scale packing, sampling, maintenance.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

ATIEL-ATC SPERC 2.Ai-I.v1

Amounts used : Volume manufactured/imported (tonnes/year) : 1.00E+04
Fraction of EU tonnage used in region : 0.1
Fraction of regional tonnage used locally : 0.1
Frequency and duration of use : Emission days (days per year) : 300
Environment factors not influenced by risk management : Local freshwater dilution factor : 10
Local marine water dilution factor : 100
Other conditions affecting environmental exposure : Negligible wastewater emissions as process operates without water contact.
Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements) : 5.00E-05
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 5.00E-12
Release fraction to soil from process (after typical onsite RMMs): 0
Technical conditions and measures at process level (source) to prevent release : Common practices vary across sites thus conservative process release estimates used.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Treat air emission to provide a typical removal efficiency of (%) : 70
Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system.
Organizational measures to prevent/limit release from site : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

Date of issue/Date of revision : 4/3/2020

18/23

Conditions and measures related to sewage treatment plant	: Estimated substance removal from wastewater via domestic sewage treatment (%): (%) : 69 Assumed domestic sewage treatment plant flow (m ³ /d) : 2.00E+03 Maximum allowable site tonnage (M _{safe}) based on release following total wastewater treatment removal (kg/day) : 1 154 460
Conditions and measures related to external treatment of waste for disposal	: External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	: External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

No exposure assessment presented for human health.

Conditions and measures related to personal protection, hygiene and health evaluation**Section 3 - Exposure estimation and reference to its source****Website:** : Not applicable.**Exposure estimation and reference to its source - Environment: 1:****Exposure assessment (environment):** : Used ECETOC TRA model.**Exposure estimation and reference to its source** : Not available.**Exposure estimation and reference to its source - Workers: 2:****Exposure assessment (human):** : The risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.**Exposure estimation and reference to its source** : Not available.**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

Environment	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction .
Health	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction .

Additional good practice advice beyond the REACH CSA

Environment	: Not available.
Health	: Not available.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mixture
Code : 37053
Product name : AZOLLA AL 22

Section 1 - Title

Short title of the exposure scenario : General use of lubricants and greases in vehicles or machinery - Industrial

List of use descriptors : **Identified use name:** General use of lubricants and greases in vehicles or machinery - Industrial
Process Category: PROC01, PROC02, PROC08b, PROC09
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04, ERC07

Environmental contributing scenarios :

Health Contributing scenarios :

Processes and activities covered by the exposure scenario	: Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.
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Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

ATIEL-ATC SPERC 4.Bi.v1

Amounts used	: Volume manufactured/imported (tonnes/year) : 2.63E+03 Fraction of EU tonnage used in region : 0.1 Fraction of regional tonnage used locally : 0.1
Frequency and duration of use	: Emission days (days per year) : 300
Environment factors not influenced by risk management	: Local freshwater dilution factor : 10 Local marine water dilution factor : 100
Other conditions affecting environmental exposure	: Negligible wastewater emissions as process operates without water contact. Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements) : 5.00E-05 Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 5.00E-12 Release fraction to soil from process (after typical onsite RMMs): 0
Technical conditions and measures at process level (source) to prevent release	: Common practices vary across sites thus conservative process release estimates used.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system.
Organizational measures to prevent/limit release from site	: Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

Date of issue/Date of revision : 4/3/2020

20/23

Conditions and measures related to sewage treatment plant	: Estimated substance removal from wastewater via domestic sewage treatment (%): (%) : 69 Assumed domestic sewage treatment plant flow (m ³ /d) : 2.00E+03 Maximum allowable site tonnage (M _{Safe}) based on release following total wastewater treatment removal (kg/day) : 303 760
Conditions and measures related to external treatment of waste for disposal	: External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	: External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

No exposure assessment presented for human health.

Conditions and measures related to personal protection, hygiene and health evaluation**Section 3 - Exposure estimation and reference to its source****Website:** : Not applicable.**Exposure estimation and reference to its source - Environment: 1:****Exposure assessment (environment):** : Used ECETOC TRA model.**Exposure estimation and reference to its source** : Not available.**Exposure estimation and reference to its source - Workers: 2:****Exposure assessment (human):** : The risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.**Exposure estimation and reference to its source** : Not available.**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

Environment	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction .
Health	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction .

Additional good practice advice beyond the REACH CSA

Environment	: Not available.
Health	: Not available.

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition : Mixture
Code : 37053
Product name : AZOLLA AL 22

Section 1 - Title

Short title of the exposure scenario : General use of lubricants and greases in vehicles or machinery - Professional

List of use descriptors : **Identified use name:** General use of lubricants and greases in vehicles or machinery - Professional
Process Category: PROC01, PROC02, PROC08a, PROC08b, PROC20
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09a, ERC09b

Environmental contributing scenarios :

Health Contributing scenarios :

Processes and activities covered by the exposure scenario	: Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.
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Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

ATIEL-ATC SPERC 9.Bp.v1

Amounts used : Volume manufactured/imported (tonnes/year) : 5.39E+03

Fraction of EU tonnage used in region : 0.1
Fraction of regional tonnage used locally : 0.1

Frequency and duration of use : Emission days (days per year) : 365

Environment factors not influenced by risk management : Local freshwater dilution factor : 10
Local marine water dilution factor : 100

Other conditions affecting environmental exposure : Negligible wastewater emissions as process operates without water contact.

Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements) : 1.00E-04
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 5.00E-04
Release fraction to soil from process (after typical onsite RMMs): 1.00E-03

Technical conditions and measures at process level (source) to prevent release : Common practices vary across sites thus conservative process release estimates used.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Prevent discharge of undissolved substance to or recover from onsite wastewater.

Organizational measures to prevent/limit release from site : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

Date of issue/Date of revision : 4/6/2020

22/23

Conditions and measures related to sewage treatment plant	: Estimated substance removal from wastewater via domestic sewage treatment (%): (%) : 69 Assumed domestic sewage treatment plant flow (m ³ /d) : 2.00E+03 Maximum allowable site tonnage (M _{Safe}) based on release following total wastewater treatment removal (kg/day) : 764
Conditions and measures related to external treatment of waste for disposal	: External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	: External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

No exposure assessment presented for human health.

Conditions and measures related to personal protection, hygiene and health evaluation**Section 3 - Exposure estimation and reference to its source****Website:** : Not applicable.**Exposure estimation and reference to its source - Environment: 1:****Exposure assessment (environment):** : Used ECETOC TRA model.**Exposure estimation and reference to its source** : Not available.**Exposure estimation and reference to its source - Workers: 2:****Exposure assessment (human):** : The risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.**Exposure estimation and reference to its source** : Not available.**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

Environment	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction .
Health	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction .

Additional good practice advice beyond the REACH CSA

Environment	: Not available.
Health	: Not available.