

JOTUN 3-i-1 Kraftvask og Træ- og Murrens

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

1.1 Product identifier

Product name	: JOTUN 3-i-1 Kraftvask og Træ- og Murrens
Product code	: 47482
Product type	: Liquid.
Product description	: Cleaner.
Other means of identification	: Not available.

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

Identified uses

Use in coatings - Consumer use: Apply this product only as specified on the label.

1.3 Details of the supplier of the safety data sheet

Jotun Boya Sanayi ve Ticaret A.Ş.
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Tel. +90 212 279 7878
SDSJotun@jotun.com

Başvurulacak Kişi: Emre Demir
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1.4 Emergency telephone number

National Poison Information Center

- +90 224 442 82 93 Uludağ Üniversitesi Zehir Danışma Merkezi (www.uludag.edu.tr/uludag/zehir.html)
a. ACİL DURUM TELEFONU: Zehirlenme durumlarında gerektiğinde ulusal zehir merkezinin (UZEM) 114 nolu telefonunu arayınız.
b. ACİL İLK YARDIM MERKEZİ:112
c. İTFAİYE:110

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to regulation SEA: RG.-11/12/2013-28848

☑ Skin Corr. 1, H314
Eye Dam. 1, H318
Aquatic Acute 1, H400
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation SEA: RG.-11/12/2013-28848.

Ingredients of unknown toxicity : ☑ Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1.9%

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 :



Product name : JOTUN 3-i-1 Kraftvask og Træ- og Murrens

SDS No. : 47482

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SECTION 2: Hazards identification

Signal word : Danger.

Hazard statements : H314 - Causes severe skin burns and eye damage.
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

General : P102 - Keep out of reach of children.

Prevention : P280 - Wear protective gloves, protective clothing and eye or face protection.
P273 - Avoid release to the environment.

Response : P391 - Collect spillage.
P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.
P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
P363 - Wash contaminated clothing before reuse.
P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : P405 - Store locked up.

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

Hazardous ingredients : quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
didecyldimethylammonium chloride
sodium hydroxide

Supplemental label elements : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Yes, applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	CAS no.	%	SEA: RG.-11/12/2013-28848	Type
quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	EC: 270-325-2 CAS: 68424-85-1	≤5	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]
alcohols, C9-11, ethoxylated didecyldimethylammonium chloride	CAS: 68439-46-3 EC: 230-525-2 CAS: 7173-51-5	≤5	Eye Irrit. 2, H319 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 2, H411	[1] [1]
quaternary C12-14 alkyl methyl amine ethoxylate methyl chloride	CAS: 1554325-20-0	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]
2-(2-butoxyethoxy)ethanol	EC: 203-961-6 CAS: 112-34-5	≤3	Eye Irrit. 2, H319	[1] [2]
propan-2-ol	EC: 200-661-7 CAS: 67-63-0	≤3	Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1] [2]

SECTION 3: Composition/information on ingredients

sodium hydroxide	Index: 603-117-00-0 EC: 215-185-5 CAS: 1310-73-2 Index: 011-002-00-6	≤3	STOT SE 3, H336 Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 See Section 16 for the full text of the H statements declared above.	[1] [2]
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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 or vPvBs 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
- [3] Substance meets the criteria for PBT
- [4] Substance meets the criteria for vPvB
- [5] Additional disclosure due to company policy

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

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** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- 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 very toxic to aquatic life. This material is toxic 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 thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/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. Do not breathe 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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

7.1 Precautions for safe handling

⚠ Avoid contact with skin and eyes. Avoid inhalation of vapour, spray or mist. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Store in a dry, cool and well-ventilated area. Keep container tightly closed.

No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Seveso Directive - Reporting thresholds (in tonnes)**Danger criteria**

Category	Notification and MAPP threshold	Safety report threshold
E1	100	200

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**

Product/ingredient name	Exposure limit values
<input checked="" type="checkbox"/> (2-butoxyethoxy)ethanol	TR ISGGM OEL (Turkey, 12/2013). TWA: 67.5 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. STEL: 101.2 mg/m ³ 15 minutes. STEL: 15 ppm 15 minutes.
propan-2-ol	ACGIH TLV (United States, 1/2021). TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes.
sodium hydroxide	ACGIH TLV (United States, 1/2021). C: 2 mg/m ³

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.

Derived no effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
<input checked="" type="checkbox"/> Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	DNEL	Long term Inhalation	1.64 mg/m ³	General population	Systemic
	DNEL	Long term Oral	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3.96 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	5.7 mg/kg	Workers	Systemic

SECTION 8: Exposure controls/personal protection

alcohols, C9-11, ethoxylated	DNEL	Long term Oral	bw/day 25 mg/kg	General population	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
didecyldimethylammonium chloride	DNEL	Long term Dermal	8.6 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	18.2 mg/m ³	Workers	Systemic
2-(2-butoxyethoxy)ethanol	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	40.5 mg/m ³	General population	Local
	DNEL	Long term Inhalation	40.5 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	60.7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	67.5 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	67.5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	101.2 mg/m ³	Workers	Local
	propan-2-ol	DNEL	Long term Dermal	888 mg/kg bw/day	Workers
DNEL		Long term Inhalation	500 mg/m ³	Workers	Systemic
DNEL		Long term Dermal	319 mg/kg bw/day	General population [Consumers]	Systemic
DNEL		Long term Inhalation	89 mg/m ³	Workers	Systemic
DNEL		Long term Oral	26 mg/kg bw/day	General population [Consumers]	Systemic
DNEL		Long term Oral	26 mg/kg bw/day	General population	Systemic
DNEL		Long term Inhalation	89 mg/m ³	General population	Systemic
DNEL		Long term Dermal	319 mg/kg bw/day	General population	Systemic
DNEL		Long term Inhalation	500 mg/m ³	Workers	Systemic
DNEL		Long term Dermal	888 mg/kg bw/day	Workers	Systemic
sodium hydroxide	DNEL	Long term Inhalation	1 mg/m ³	General population	Local
	DNEL	Long term Inhalation	1 mg/m ³	Workers	Local

Predicted no effect concentrations

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
propan-2-ol	PNEC	Fresh water	140.9 mg/l	-
	PNEC	Marine	140.9 mg/l	-
	PNEC	Sewage Treatment Plant	2251 mg/l	-
	PNEC	Fresh water sediment	552 mg/kg dwt	-
	PNEC	Marine water sediment	552 mg/kg dwt	-
	PNEC	Soil	28 mg/kg dwt	-
	PNEC	Secondary Poisoning	160 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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 to EN 166 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to EN374. Not recommended, gloves(breakthrough time) < 1 hour: polyvinyl alcohol (PVA) Recommended, gloves(breakthrough time) > 8 hours: butyl rubber, 4H, CPF 3, Responder, nitrile rubber, neoprene, PVC, Viton® May be used, gloves(breakthrough time) 4 - 8 hours: Teflon, PE

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

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 : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. By spraying : particulate filter (FFP2 / N95). In confined spaces, use compressed-air or fresh-air respiratory equipment.

SECTION 8: Exposure controls/personal protection

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	: Colourless.
Odour	: Faint odour.
Odour threshold	: Not applicable.
pH	: 12.5
Melting point/freezing point	: 0
Initial boiling point and boiling range	: 100°C (212°F)
Flash point	: Not available. (ISO 3679:2015)
Evaporation rate	: Highest known value: 1.7 (propan-2-ol) Weighted average: 0.83 compared with butyl acetate
Flammability (solid, gas)	: Not applicable.
Upper/lower flammability or explosive limits	: 0.8 - 12%
Vapour pressure	: Highest known value: 4.4 kPa (33 mm Hg) (at 20°C) (propan-2-ol). Weighted average: 2.15 kPa (16.13 mm Hg) (at 20°C)
Vapour density	: Highest known value: 5.6 (Air = 1) (2-(2-butoxyethoxy)ethanol). Weighted average: 3.89 (Air = 1)
Density	: 1 g/cm ³ (ISO 2811-1:2016)
Solubility(ies)	: Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Lowest known value: 210°C (410°F) (2-(2-butoxyethoxy)ethanol).
Decomposition temperature	: Not available.
Viscosity	: <input checked="" type="checkbox"/> Kinematic (40°C): 1 mm ² /s (1 cSt) (ISO 3219)
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional 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	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids. Under normal conditions of storage and use, hazardous reactions will not occur.
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

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	LD50 Oral	Rat	426 mg/kg	-
alcohols, C9-11, ethoxylated	LD50 Oral	Rat	1378 mg/kg	-
2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Dermal	Rabbit	2700 mg/kg	-
propan-2-ol	LD50 Oral	Rat	4500 mg/kg	-
	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Route	ATE value
Oral	4291.41 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Skin - Severe irritant	Rabbit	-	25 milligrams	-
alcohols, C9-11, ethoxylated	Eyes - Irritant	Mammal - species unspecified	-	-	-
didecyldimethylammonium chloride	Skin - Severe irritant	Rabbit	-	500 milligrams	-
quaternary C12-14 alkyl methyl amine ethoxylate	Eyes - Irritant	Mammal - species unspecified	-	-	-
methyl chloride	Skin - Mild irritant	Mammal - species unspecified	-	-	-
2-(2-butoxyethoxy)ethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
propan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

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Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
propan-2-ol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact : Causes serious eye damage.
- Inhalation : No known significant effects or critical hazards.
- Skin contact : Causes severe burns.
- Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation : No specific data.
- Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion : Adverse symptoms may include the following:
stomach pains

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.

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.

SECTION 11: Toxicological information

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.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Acute EC50 0.015 mg/l	Daphnia	48 hours
alcohols, C9-11, ethoxylated	Acute LC50 0.85 mg/l	Fish	96 hours
	Chronic NOEC 32.2 ppb	Fish - Pimephales promelas	34 days
didecyldimethylammonium chloride	Acute EC50 5.36 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 2686 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
propan-2-ol	Acute IC50 <1 mg/l	Algae	72 hours
	Acute LC50 970 to 1100 µg/l Marine water	Crustaceans - Neomysis mercedis - Adult	48 hours
sodium hydroxide	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
	Acute EC50 40.38 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Conclusion/Summary : This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	OECD 301E	95 % - Readily - 25 days	-	-
2-(2-butoxyethoxy)ethanol	-	>60 % - 28 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	-	-	Readily
didecyldimethylammonium chloride	-	-	Readily
2-(2-butoxyethoxy)ethanol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-(2-butoxyethoxy)ethanol	1	-	low
propan-2-ol	0.05	-	low

SECTION 12: Ecological information

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Other adverse effects : No known significant effects or critical hazards.








SECTION 13: Disposal considerations

13.1 Waste treatment methods

T. C. Ministry of Environment and Urbanism published on April 2, 2015 R.G. Dispose according to the "Waste Management Regulation" no. 29314.

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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1760	UN1760	UN1760	UN1760
14.2 UN proper shipping name	Corrosive liquid, n.o.s. (quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, didecyldimethylammonium chloride)	Corrosive liquid, n.o.s. (quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, didecyldimethylammonium chloride)	Corrosive liquid, n.o.s. (quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, didecyldimethylammonium chloride). Marine pollutant (quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)	Corrosive liquid, n.o.s. (quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, didecyldimethylammonium chloride)
14.3 Transport hazard class(es)	8  	8  	8  	8 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. Hazard identification number 80 Tunnel code (E)	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-A, S-B	The environmentally hazardous substance mark may appear if required by other transportation regulations.

SECTION 14: Transport information

Marking : The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.

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 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

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

E1

EU regulations

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - : Not applicable.

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

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Ingredient name	Annex	Status
Didcyldimethylammonium chloride	Annex I - Part 1	Listed

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.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 EUH statement = CLP-specific Hazard statement
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to regulation SEA: RG.-11/12/2013-28848

Classification	Justification
✔ Skin Corr. 1, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	On basis of test data On basis of test data Calculation method Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

✔ Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Eye Dam. 1 Eye Irrit. 2 Flam. Liq. 2 Met. Corr. 1 Skin Corr. 1 Skin Corr. 1A Skin Corr. 1B Skin Irrit. 2 STOT SE 3	ACUTE TOXICITY - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 CORROSIVE TO METALS - Category 1 SKIN CORROSION/IRRITATION - Category 1 SKIN CORROSION/IRRITATION - Category 1A SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
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Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their

Product name : JOTUN 3-i-1 Kraftvask og Træ- og Murrens

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SECTION 16: Other information

needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.