

Safety data sheet

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

1.1. Product identifier

Code: 3.697.0024
Product name: LCN-800

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

Intended use: Detergent deodorant sanitizing

Identified Uses	Industrial	Professional	Consumer
Professional use	-	✔	-

Uses Advised Against

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Name: LAVORWASH SPA
Full address: J.F. KENNEDY, 12 STREET
District and Country: 46020 PEGOGNAGA - MANTOVA (MN)
ITALY
phone: 037.655.431
fax 0376558927

E-mail address of the competent person responsible for the Safety Data Sheet: info@lavorwash.it

1.4. Emergency telephone number

For urgent inquiries refer to: Poison Centre – Niguarda – Milano Hospital
Phone. +39 02 66101029

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

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R phrases:

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2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.
H315 Causes skin irritation.

Precautionary statements:

P264 Wash . . . thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
P302+P352 IF ON SKIN: Wash with plenty of water / . . .
P332+P313 If skin irritation occurs: Get medical advice / attention.

2.3. Other hazards.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
BENZALKONIUM CHLORIDE			
CAS. 63449-41-2	1 - 1,5	C R34, Xn R21/22, N R50	Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Aquatic Acute 1 H400 M=1
EC. 264-151-6			
INDEX. 612-140-00-5			
2-BUTOXYETHANOL			
CAS. 111-76-2	1 - 1,5	Xn R20/21/22, Xi R36/38	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC. 203-905-0			
INDEX. 603-014-00-0			
Reg. no. 01-2119475108-36			
ALCOHOL ETHOXYLATES			
CAS. 68439-54-3	1 - 1,5	Xn R22, Xi R41	Acute Tox. 4 H302, Eye Dam. 1 H318
EC. 931-985-3			
INDEX. -			

DIPROPYLENE GLYCOL MONOMETHYL ETHER

CAS. 34590-94-8 0,05 - 0,1

EC. 252-104-2

INDEX. -

Reg. no. 01-2119450011-60

1-METHOXY-2-PROPANOL

CAS. 107-98-2 0,05 - 0,1 R10, R67 Flam. Liq. 3 H226, STOT SE 3 H336

EC. 203-539-1

INDEX. 603-064-00-3

Reg. no. 01-2119457435-35

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.**4.1. Description of first aid measures.**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Get medical advice/attention immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

INHALATION : no symptoms or particular effect under normal conditions of use : In case of use in confined or poorly ventilated areas you may have airway disorders with drowsiness , dizziness and decrease in attention state.

EYES : irritation with burning , redness , tearing and blurred sense of sight

SKIN : irritation of the skin's surface layer dryness and chapped which , if ignored , can also determine the dermatitis

INGESTION : intestinal disorders with abnormal digestive symptoms and nausea , vomiting and diarrhea

4.3. Indication of any immediate medical attention and special treatment needed.

In case of incident or complaints consult a doctor immediately (if possible show directions for use or safety data sheet) . Special treatments : none

SECTION 5. Firefighting measures.**5.1. Extinguishing media.****SUITABLE EXTINGUISHING EQUIPMENT**

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products. They can form ammonia, nitrogen and carbon oxidation products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour

accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

2-BUTOXYETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	49	10	196	40	SKIN.
MAK	DEU	49	10	98	20	SKIN.
VLA	ESP	98	20	245	50	SKIN.
VLEP	FRA	49	10	246	50	SKIN.
WEL	GBR	123	25	246	50	SKIN.
TLV	ITA	98	20	246	50	SKIN.
OEL	EU	98	20	246	50	SKIN.
TLV-ACGIH		97	20			

Predicted no-effect concentration - PNEC.

Normal value in fresh water	88	mg/l
Normal value in marine water	88	mg/l
Normal value for fresh water sediment	346	mg/kg
Normal value for marine water sediment	346	mg/kg
Normal value for water, intermittent release	91	mg/l
Normal value of STP microorganisms	463	mg/l
Normal value for the terrestrial compartment	233	mg/kg soil dw

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers.				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	26.7 mg/kg bw/d	VND	6.3 mg/kg bw/d				
Inhalation.	147 mg/m3	426 mg/m3	VND	59 mg/m3	246 mg/m3	1091 mg/m3	VND	98 mg/m3
Skin.	VND	89 mg/kg bw/d	VND	75 mg/kg bw/d	VND	89 mg/kg bw/d	VND	125 mg/kg bw/d

1-METHOXY-2-PROPANOL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	ESP	375	100	568	150	SKIN.
VLEP	FRA	188	50	375	10	SKIN.
WEL	GBR	375	100	560	150	SKIN.
TLV	ITA	375	100	568	150	SKIN.
OEL	EU	375	100	568	150	SKIN.
TLV-ACGIH		184	50	368	100	

Predicted no-effect concentration - PNEC.

Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	52,3	mg/kg
Normal value for marine water sediment	5,2	mg/kg
Normal value for water, intermittent release	100	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	4,59	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers.				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	33 mg/kg bw/d				
Inhalation.			VND	43,9 mg/m3	553,5 mg/m3	553,5 mg/m3	VND	369 mg/m3
Skin.			VND	78 mg/kg bw/d			VND	183 mg/kg bw/d

DIPROPYLENE GLYCOL MONOMETHYL ETHER**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	310	50	310	50	
MAK	DEU	310	50	310	50	
VLA	ESP	308	50			SKIN.
VLEP	FRA	308	50			SKIN.
WEL	GBR	308	50			SKIN.
TLV	ITA	308	50			SKIN.
OEL	EU	308	50			SKIN.
TLV-ACGIH		606	100	909	150	SKIN.

Predicted no-effect concentration - PNEC.

Normal value in fresh water	19	mg/l
Normal value in marine water	19	mg/l
Normal value for fresh water sediment	702	mg/kg/d
Normal value for marine water sediment	702	mg/kg/d

Normal value for water, intermittent release	190	mg/l
Normal value of STP microorganisms	4168	mg/l
Normal value for the terrestrial compartment	274	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers.		Effects on workers					
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	36 mg/kg bw/d				
Inhalation.			VND	37.2 mg/m3			VND	308 mg/m3
Skin.			VND	121 mg/kg bw/d			VND	283 mg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

We recommend use of nitrile gloves in class at least 3 (protection against permeation of fluids > 120 minutes) with a thickness of at least 0.15 mm .

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.**9.1. Information on basic physical and chemical properties.**

Appearance	Liquid.
Colour	Light blue.
Odour	Citrusy.
Odour threshold.	Not available.
pH.	7,8 - 8,2
Melting point / freezing point.	Not available.
Initial boiling point.	100 °C.
Boiling range.	Not available.
Flash point.	Not inflammable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,000 Kg/l
Solubility	Soluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Strong oxidizing agents.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.**11.1. Information on toxicological effects.**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

BENZALKONIUM CHLORIDE:

Corrosive to skin and mucous membranes.

Highly corrosive to the eyes.

Sensitization: no sensitizing effect known.

Not mutagenic (Ames test OECD471: genmutation in vitro study in bacteria).

BENZALKONIUM CHLORIDE

LD50 (Oral).930 mg/kg Rat

LD50 (Dermal).1560 mg/kg Rat

LC50 (Inhalation).0,22 mg/l/4h Rat

DIPROPYLENE GLYCOL MONOMETHYL ETHER

LD50 (Oral).> 5000 mg/kg Rat

LD50 (Dermal).9510 mg/kg Rabbit

2-BUTOXYETHANOL

LD50 (Oral).615 mg/kg Rat

LD50 (Dermal).405 mg/kg Rabbit

LC50 (Inhalation).2,2 mg/l/4h Rat

1-METHOXY-2-PROPANOL

LD50 (Oral).5300 mg/kg Rat

LD50 (Dermal).13000 mg/kg Rabbit

LC50 (Inhalation).54,6 mg/l/4h Rat

ALCOHOL ETHOXYLATES

LD50 (Oral).> 2000 mg/kg Rat

LD50 (Dermal).> 2000 mg/kg Rabbit

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.**DIPROPYLENE GLYCOL****MONOMETHYL ETHER**

LC50 - for Fish.

> 1000 mg/l/96h *Poecilia reticulata*

EC50 - for Crustacea.

1930 mg/l/48h *Acartia tonsa*

EC50 - for Algae / Aquatic Plants.

> 969 mg/l/72h *Selenastrum capricornutum* (new name: *Pseudokirchnerella subcapitata*)

2-BUTOXYETHANOL

LC50 - for Fish.

1474 mg/l/96h *Oncorhynchus mykiss*

EC50 - for Crustacea.

1550 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

911 mg/l/72h *Pseudokirchnerella subcapitata*

1-METHOXY-2-PROPANOL

LC50 - for Fish.

20800 mg/l/96h *Pimephales promelas*

EC50 - for Crustacea.

> 500 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

8578 mg/l/72h *Skeletonema costatum*

ALCOHOL ETHOXYLATES

LC50 - for Fish.

> 10 mg/l/96h *Cyprinus carpio*

EC50 - for Crustacea.

> 10 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants.

> 10 mg/l/72h *Desmodesmus subspicatus*

Chronic NOEC for Algae / Aquatic Plants.

10 mg/kg *Lepidium sativum*

12.2. Persistence and degradability.

BENZALKONIUM CHLORIDE

NOT rapidly biodegradable.

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Solubility in water.

mg/l 1000 - 10000

Rapidly biodegradable.

2-BUTOXYETHANOL

Solubility in water.

mg/l 1000 - 10000

Rapidly biodegradable.

1-METHOXY-2-PROPANOL

Solubility in water.

mg/l 1000 - 10000

Rapidly biodegradable.

ALCOHOL ETHOXYLATES

Rapidly biodegradable.

> 60 %

12.3. Bioaccumulative potential.

DIPROPYLENE GLYCOL
MONOMETHYL ETHERPartition coefficient: n-
octanol/water. 0,0043

2-BUTOXYETHANOL

Partition coefficient: n-
octanol/water. 0,81

1-METHOXY-2-PROPANOL

Partition coefficient: n-
octanol/water. < 1**12.4. Mobility in soil.**

ALCOHOL ETHOXYLATES

Partition coefficient: > 4200 immobile
soil/water.**12.5. Results of PBT and vPvB assessment.**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

BENZALKONIUM CHLORIDE:

Behaviour in sewage plants: EC20 / 0.5h = 10 mg / l (activated sludge). Possible toxic effects on activated sludge, depending on the concentration.
COD: 1130 mg O₂ / g product.

AOX: The product does not contain substances that may affect the AOX value in waste water. And 'necessary to provide an accurate washing of this chloride in the product during the execution of the AOX method.
heavy metals and their compounds (EC Regulation n.2006 / 11): none.

SECTION 13. Disposal considerations.**13.1. Waste treatment methods.**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.**14.1. UN number.**

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.**

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product
Point. 3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Ingredients according to Regulation (EC) No. 648/2004

Less than 5% cationic surfactants, non-ionic surfactants, EDTA and salts thereof
Biodegradability 90%.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R10	FLAMMABLE.
R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R21/22	HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED.
R22	HARMFUL IF SWALLOWED.
R34	CAUSES BURNS.
R36/38	IRRITATING TO EYES AND SKIN.
R41	RISK OF SERIOUS DAMAGE TO EYES.
R50	VERY TOXIC TO AQUATIC ORGANISMS.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
 2. Directive 67/548/EEC and following amendments and adjustments
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 4. Regulation (EU) 1272/2008 (CLP) of the European Parliament
 5. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 6. Regulation (EU) 453/2010 of the European Parliament
 7. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 8. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 9. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - Niosh - Registry of Toxic Effects of Chemical Substances
 - INRS - Fiche Toxicologique (toxicological sheet)

- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.