Revision nr. 4 LAVORWASH S.p.A. Dated 19/05/2015 First elaboration 06/09/2005 0.010.0032 - CAR Page n. 1/11

Safety data sheet

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

1.1. Product identifier

Code: 0.010.0032 Product name CAR

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

Detergent by the external car washing Intended use

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

LAVORWASH SPA Name

J.F. KENNEDY, 12 STREET Full address

46020 PEGOGNAGA - MANTOVA (MN) District and Country

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:

H318 Serious eye damage, category 1 Causes serious eye damage.

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

Danger Symbols:

R phrases:

2.2. Label elements.

Revision nr. 4

Dated 19/05/2015

First elaboration 06/09/2005

Page n. 2/11

0.010.0032 - CAR

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

Hazard pictograms:



Signal words: Danger

Hazard statements:

H318 Causes serious eye damage.

Precautionary statements:

P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing

P310 Immediately call a POISON CENTER / doctor / . . .

Contains: SODIUM LAURETH SULFATE

ALCOHOL ETHOXYLATES

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:

Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
6 - 7	Xi R36/38	Eye Irrit. 2 H319, Skin Irrit. 2 H315
1,5 - 2	Xi R36/38	Eye Irrit. 2 H319, Skin Irrit. 2 H315
1 - 1,5	Xn R22, Xi R41	Acute Tox. 4 H302, Eye Dam. 1 H318
	6 - 7 1,5 - 2	6 - 7 Xi R36/38 1,5 - 2 Xi R36/38

EC. 931-985-3 INDEX. -

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.

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

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

The combustion fumes contain oxides of carbon, nitrogen and sulphur.

5.3. Advice for firefighters.

LAVORWASH S.p.A.	Revision nr. 4
F	Dated 19/05/2015
0.010.0032 - CAR	First elaboration 06/09/2005
	Page n. 4/11

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.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

LAVORWASH S.p.A.	Revision nr. 4
I	Dated 19/05/2015
0.010.0032 - CAR	First elaboration 06/09/2005
	Page n. 5/11

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

SODIUM LAURETH SULFA	\TE							
Predicted no-effect concentration	n - PNEC.							
Normal value in fresh water				0,24		mg/l		
Normal value in marine water				0,024		mg/l		
Normal value for fresh water sec	liment			5,45		mg/k	g	
Normal value for marine water s	ediment			0,545		mg/k	- g	
Normal value for water, intermitt	ent release			0,071		mg/l	=	
Normal value of STP microorgar	nisms			10000		mg/l		
Normal value for the food chain	(secondary poisoni	ng)		VND				
Normal value for the terrestrial c	ompartment			0,946		mg/k	g	
Health - Derived no-effect level - DNEL / DMEL								
	Effects on							
	consumers.				Effects on workers			
Route of exposure		Acute systemic	Chronic local	Chronic systemic		Acute systemic	Chronic local	Chronic systemic
Route of exposure Oral.	consumers.	Acute systemic	Chronic local VND		workers		Chronic local	
	consumers. Acute local	ŕ		systemic	workers		Chronic local	

Legend:

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 I 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 B 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.

LAVORWASH S.p.A. Revision nr. 4 Dated 19/05/2015 First elaboration 06/09/2005 Page n. 6/11

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 Viscous liquid.

Colour Slightly straw-coloured.

Odour Floral.

Odour threshold. Not available.

pH. $6,5 \pm 0,5$ of raw sample.

Melting point / freezing point. Not available. Initial boiling point. Not available. Boiling range. Not available. Flash point. Not available. 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. 1,21 (25°C) Kg/I Solubility Soluble in water. Partition coefficient: n-octanol/water Not available. Auto-ignition temperature. Not available. Decomposition temperature. Not available. Viscosity Not available. Not explosive. Explosive properties 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.

Revision nr. 4

Dated 19/05/2015

First elaboration 06/09/2005

Page n. 7/11

0.010.0032 - CAR

Avoid temperatures below 5 ° C.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Oxides of carbon, nitrogen and sulfur in case of fire.

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.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

SODIUM LAURETH SULFATE LD50 (Dermal).> 2000 mg/kg Rat

ALCOHOL ETHOXYLATES LD50 (Oral).> 2000 mg/kg Rat LD50 (Dermal).> 2000 mg/kg Rabbit

SECTION 12. Ecological information.

12.1. Toxicity.

SODIUM LAURETH

SULFATE

LC50 - for Fish. 7,1 mg/l/96h Danio Rerio

EC50 - for Crustacea. 7,2 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic 27 mg/l/72h Scenedesmus subspicatus

Plants.

ALCOHOL ETHOXYLATES

 $LC50 - for Fish. > 10 mg/l/96h Cyprinus carpio \\ EC50 - for Crustacea. > 10 mg/l/48h Daphnia magna$

EC50 - for Algae / Aquatic > 10 mg/l/72h Desmodesmus subspicatus

Plants.

Chronic NOEC for Algae / 10 mg/kg Lepidium sativum

Aquatic Plants.

12.2. Persistence and degradability.

Revision nr. 4 LAVORWASH S.p.A. Dated 19/05/2015 First elaboration 06/09/2005 0.010.0032 - CAR Page n. 8/11 SODIUM LAURETH **SULFATE** Rapidly biodegradable. 70 ALCOHOL ETHOXYLATES Rapidly biodegradable. > 60 % 12.3. Bioaccumulative potential. Information not available. 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. Information not available. **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.

LAVORWASH S.p.A.	Revision nr. 4 Dated 19/05/2015		
0.010.0032 - CAR	First elaboration 06/09/2005		
	Page n. 9/11		
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 authorisarion (Annex XIV REACH).			
None.			

Revision nr. 4

Dated 19/05/2015

First elaboration 06/09/2005

Page n. 10/11

0.010.0032 - CAR

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 15% non-ionic surfactants
Less than 30% anionic surfactants

Pindogradobility 00.9/

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:

Acute Tox. 4 Acute toxicity, category 4

Eye Dam. 1 Serious eye damage, category 1

Eye Irrit. 2 Eye irritation, category 2
Skin Irrit. 2 Skin irritation, category 2
H302 Harmful if swallowed.

H318 Causes serious eye damage.
H319 Causes serious eye irritation.

H315 Causes skin irritation.

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

R22 HARMFUL IF SWALLOWED.
R36/38 IRRITATING TO EYES AND SKIN.
R41 RISK OF SERIOUS DAMAGE TO EYES.

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)

Revision nr. 4

Dated 19/05/2015

First elaboration 06/09/2005

Page n. 11/11

0.010.0032 - CAR

- 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
- 3. Regulation (EU) 1907/2006 (REACH) of the European Parliament
- 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
- 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.