

**COMBICLEAN****Material Safety Data Sheet****SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Code: ZARAM031  
 Product name: COMBICLEAN

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

Identified use(s): AISE P311 OVEN/GRILL CLEANER; SPRAY AND WIPE MANUAL PROCESS  
 Sector of use: SU22 – PROFESSIONAL USES : PUBLIC DOMAIN (ADMINISTRATION, EDUCATION, ENTERTAINMENT, SERVICES, CRAFTSMEN)  
 Product category/subcategory: PC35 – WASHING AND CLEANING PRODUCTS (INCLUDING SOLVENT BASED PRODUCTS)  
 Environmental release category: ERC8a  
 Uses advised against: NO DATA AVAILABLE.

**1.3. Details of the supplier of the safety data sheet**

Name: ALI S.p.A.  
 Full address: VIA SCHIAPARELLI, 15  
 District and country: 31029 VITTORIO VENETO (TV)  
 ITALY  
 tel. +39 0438 9110  
 fax +39 0438 912300  
 e-mail address of the competent person responsible for the material safety data sheet: lainox@lainox.it  
 Product distributed by: ALI S.p.A

**1.4. Emergency telephone number**

For urgent inquiries refer to

**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 Directives 67/548/EEC and 1999/45/EC and/or 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.

Danger Symbols:

C

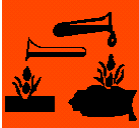
R phrases:

35

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

**COMBICLEAN****2.2. Label elements.**

Hazard labeling pursuant to Directives 67/548/CEE and 1999/45/CE and subsequent amendments and supplements.



CORROSIVE

**R35** CAUSES SEVERE BURNS.  
**S26** IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.  
**S28** AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER.  
**S36/37/39** WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.  
**S45** IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).  
**S50** DO NOT MIX WITH STRONG ACIDS

**Contains:** SODIUM HYDROXIDE

Safety data sheet available on request for professional users.

**2.3. Other hazards.**

The product does not contain substances PBT or vPvB according to Regulation (EC) N. 1907/2006, Annex XIII.

**SECTION 3. Composition/information on ingredients.****3.1. Substances.**

Information not relevant.

**3.2. Mixtures.**

**Description:** The product is a mixture of substances classified as hazardous and non-hazardous. Hazardous substances and those whose concentration must be monitored at the workplace are listed below together with their hazard classification.

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
<b>SODIUM HYDROXIDE</b>			
CAS. 1310-73-2	10 - 15	C R35	Skin Corr. 1A H314
EC. 215-185-5			
INDEX. 011-002-00-6			
Reg. no. 01-2119457892-27			
<b>ACID PHOSPHONIC POLYMER</b>			
CAS. -	1 - 5	C R34	Skin Corr. 1B H314
EC. -			
INDEX. -			
<b>ALCILIC ETHER OF CARBOXYLIC ACID</b>			
CAS. -	1 - 5	Xi R38, Xi R41	Eye Dam. 1 H318, Skin Irrit. 2 H315
EC. polymer			
INDEX. -			
Reg. no. polymer			

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 = Hazardous to Environment(N)

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

**COMBICLEAN**Ingredients according to Regulation (EC) No 648/2004

less than 5 %                      anionic surfactants, phosphonates

**SECTION 4. FIRST AID MEASURES.**

If you feel unwell seek medical advice if possible show the container or label or MSDS for this product.

**4.1. Description of first aid measures.**

Adopt the following general measures:

In case of CONTACT WITH EYES: remove contact lenses and wash immediately with plenty of water for at least 30/60 minutes holding the eyelids open. Get medical advice immediately.

In case of CONTACT WITH SKIN: remove contaminated clothing immediately and take a shower. Get medical advice immediately. Wash contaminated clothing separately before reuse.

In case of INHALATION: get medical advice immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration.

In case of INGESTION: get medical advice immediately. Never give anything by mouth to an unconscious person unless authorized by a doctor. Do not induce vomiting unless expressly authorized by a doctor.

PROTECTION OF RESCUERS: do not take any action that may involve any personal risk or without having received suitable training. Perform mouth-to-mouth can be dangerous to the rescuer. If there has been a substantial leakage the rescuer should wear protective gloves and prudently closed working clothes.

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

INGESTION: burns to mouth, esophagus, can cause internal perforation.

EYE CONTACT: burns to eyes. May cause ulceration of the conjunctiva and cornea.

SKIN CONTACT: Intense burns and penetrating ulcers in the skin.

INHALATION: Severe irritation of the respiratory tract.

See also section 11.

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

In case of health disorder seek medical advice and follow his directions. Do not give anything by mouth to an unconscious person. Always seek medical advice in case of doubt or when symptoms may arise even where not provided. Speaking with a doctor keep available the material safety data sheet or failing this, the label. In case of inhalation of decomposition products in a fire symptoms may be delayed. Keep the exposed person under medical surveillance for 48 hours.

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

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

**UNSUITABLE EXTINGUISHING MEDIA**

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 (carbon oxides, toxic pyrolytic products, etc.).

# COMBICLEAN

Revision n. 1

Dated 12/08/2013

Printed on 12/08/2013

Page n. 4/18

## 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.

FOR THOSE WHO DO NOT DIRECTLY INTERVENE: leave the area surrounding the spill or release. Do not smoke. Remove all sources of ignition (cigarettes, flames, sparks, etc.). Provide adequate ventilation. If vapors, dusts, fumes and aerosols form use respiratory protection. Consult an expert.

FOR THOSE WHO DIRECTLY INTERVENE: eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the area where the loss occurred. In the case of solid product prevent the formation of dust spraying the product with water if there are no contraindications. In case of dust dispersed in air or fumes use respiratory protection. Stop leakages if it is not dangerous. Do not handle damaged containers or spilled material unless wearing gloves and protective clothing. Refer to protective equipment recommended in Section 8. Provide adequate ventilation. Do not smoke. Evacuate persons not adequately equipped. Consult an expert.

### 6.2. Environmental protections.

The product must not penetrate into the sewer system or come into contact with surface water or ground water. If the product has escaped into a water course, into a drainage system, or has contaminated the ground or vegetation, notify the competent authorities immediately.

### 6.3. Methods and material for containment and cleaning up.

If the spill occurred in a highway indicate the danger and notify the competent authorities (police, firefighters).

In case of:

#### SMALL SPILL

<i>Recovery</i>	Recover most of the material. Absorb with a rag or inert material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc.). Place contaminated material in an appropriate container labeled and separated from other waste. Do not dispose of into drains. Disposal of contaminated material must be made in accordance with the provisions of Section 13. The solutions with alkaline pH must be neutralized before being sent to disposal.
<i>Neutralization</i>	Use diluted and weak acids; avoid the use of strong and / or concentrated acids.
<i>Cleaning/Decontamination</i>	Wash non-recoverable residues with plenty of water.

#### LARGE SPILL

Contain the spill. If possible, cover drains and prevent the product flow into drains.

<i>Recovery</i>	Draw product into a suitable container (made of material compatible with the product) and soak up any leaked product with absorbent inert material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc.). Collect as much of the remaining material with non-sparking tools and place into a suitable labeled container and separated from other waste. Do not dispose of into drains. Disposal of contaminated material must be made in accordance with the provisions of Section 13. The solutions with alkaline pH must be neutralized before being sent to disposal.
<i>Neutralization</i>	Use diluted and weak acids; avoid the use of strong and / or concentrated acids.
<i>Cleaning/Decontamination</i>	Wash non-recoverable residues with plenty of water.

### 6.4. Reference to other sections.

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

**COMBICLEAN****SECTION 7. Handling and storage****7.1 Precautions for safe handling**

The staff handling chemicals should be instructed about the specific risks and the preventive and protective measures, even to cope with any emergency, pursuant to local regulations and laws. Handle the product after having consulted all other sections of this MSDS.

**Fire prevention measures**

Perform manipulation in a place equipped with the fire-fighting measures described in section 5.

**Measures to prevent formation of dust and aerosols**

Avoid formation of aerosols.

**Incompatible substances or mixtures**

Do not handle with incompatible materials and do not manipulate with objects that come into contact or which may come into contact with incompatible materials (for a list of incompatible materials see sub-section 10.5).

**Measures for environmental protection**

Avoid spills. If you can handle the product away from drains or after taking appropriate measures (coverage). Any spills on the floor can make it slippery. Confining the washing water, avoiding contamination of drains, surface water, groundwater (risk of environmental contamination).

**Advice on general occupational hygiene**

Wear protective equipment specified in section 8. Avoid contact with skin, eyes and clothing. Do not breathe any vapors or mists. Avoid spills and improper handling that can cause leakage. Do not eat, drink or smoke while using the product. Wash hands, forearms and face after using the product. Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

**7.2 Conditions for safe storage, including any incompatibilities.****Requirements for storage rooms and storage conditions**

Store the product in a place equipped with the fire-fighting measures described in section 5. Keep away from food, drink and animal feed. Store the product in closed, labeled containers, away from heat and open flame in a well-ventilated area with temperatures between +5 °C and +40°C. Do not store with incompatible materials (for a list of incompatible materials see sub-section 10.5). For any other conditions to be avoided refer to sub-section 10.4. Protect against solar radiation and the action of heat. Keep away from flammable substances. Ensure adequate supply of water to extinguish. Make sure there is adequate ventilation using mechanical ventilation. Transport must be guaranteed in a workmanlike manner according to the height of the stack, the insurance of the containers to prevent them from falling and to mark them according to rules. Tanks and containers shall be equipped with waterproof containment tank built with suitable materials. The containers with incompatible chemicals must be spaced and equipped with separate containment tanks.

**Requirements for storage containers and materials in contact**

For transport, storage, handling and storage tanks use suitable materials only. Close tight the container after use.

**Compatible materials:**

Plastics: polyethylene, polypropylene, polyvinylchloride (PVC), Teflon, PVDF (partially resistant)

Elastomers: EPDM, NBR (partially resistant)

Metals: stainless steel

**Incompatible materials:**

Plastics: acetalic resins, polyamides

Elastomers: viton, silicone

Metals: carbon steel, galvanized steel, aluminum, copper, copper alloys, zinc.

Given the wide variety of available material, the list of compatible materials is indicative. Always check the compatibility of materials of tanks, containers, piping, pumps, valves, measurements and control instruments, seals before using the product.

**7.3. Specific end use(s).****Recommendations**

The product is a special detergent for cleaning of industrial ovens and grills. The product can be applied either manually or by spraying with automatic system.

**How to use**

Spray the product on the surface to be cleaned and leave for a few minutes. At the end of the cleaning rinse the product and dispose of residues in accordance with local regulations (see section 13).

**COMBICLEAN****SECTION 8. Exposure controls/personal protection.****8.1. Control parameters.**

## Regulatory References:

United Kingdom	EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Éire	Code of Practice Chemical Agent Regulations 2011.
OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
TLV-ACGIH	ACGIH 2012

**SODIUM HYDROXIDE****Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	UK			2	
OEL	IRL			2	
TLV-ACGIH				2 (C)	

**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
Inhalation.			1 mg/m3	VND			1 mg/m3	VND

## 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.

Recommended monitoring procedures: this product contains ingredient with exposure limits, personal monitoring may be required, workplace atmosphere to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protection equipment.

**8.2. Exposure controls.****Appropriate engineering controls.**

As the use of adequate technical equipment must always take priority over personal protection equipment, ensure good ventilation at the workplace through effective local aspiration or air vent. If these steps do not keep the concentration of the product below the exposure limit values in the workplace, wear suitable protection for the respiratory tract. During the use of the product refer to the label for hazards and other details.

**Individual protection devices.**

The personal protective equipment must comply with the regulations set forth below.

**HAND PROTECTION**

Protect hands with gloves suitable for chemicals category III (ref. Directive 89/686/EEC and standard EN 374 or other local regulation) such as rubber. Final selection of glove material the following aspects must be considered: degradation, breakage times and permeation. In the case of mixtures the resistance of protective gloves should be checked before use, as it can be unpredictable. Gloves have a time limit which depends on the exposure duration.

*Suitable gloves for continuous and accidental contact:*

Material: rubber

Penetration time: > 480 minutes

Thickness: > 0.7 mm

**COMBICLEAN****EYES PROTECTION**

Protect eyes with air tight goggles (ref standard EN 166). Provide an eye wash.

**SKIN PROTECTION**

Wear working clothes with long sleeves and safety shoes for professional use category III (ref. Directive 89/686/EEC and standard EN 344). Wash with soap and water after removing protective clothing. Provide an emergency shower.

**RESPIRATORY PROTECTION**

In case of exceeding the threshold value (if available) of one or more of the substances present in the product, referring to daily exposure in the workplace or to a fraction established by the company's prevention and protection service, wear a mask with filter type E or of the universal type, the class (1, 2 or 3) must be chosen in relation to the limit concentration of use (ref. standard EN 141).

The use of respiratory protective equipment, such as masks of the type described above, it is necessary in the absence of technical measures to limit worker exposure. The protection provided by masks is in any case limited.

In the case in which the substance in question is odorless or its olfactory threshold is higher than the relative exposure limit and in case of emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear a compressed air breathing apparatus open circuit (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

**Environmental exposure controls.**

The emission from ventilation or work process equipments should be checked to ensure they comply with local directives and legislation on environmental protection. In some cases fume scrubbers, filters or other engineering modifications to the process are required to reduce emissions to acceptable levels. Refer to local regulations for pollution of air, soil and water. For any further information please see also sections 6, 12 and 13.

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

Appearance	liquid
Colour	pale yellow
Odour	typical
Odour threshold	N.A.
pH.	14
Melting or freezing point	N.A.
Initial boiling point	N.A.
Boiling range	N.A.
Flash point	> 60 °C.
Evaporation rate	N.A.
Flammability of solids and gasses	N.A.
Lower flammability limit	N.A.
Upper flammability limit	N.A.
Lower explosive limit	N.A.
Upper explosivity limit	N.A.
Vapour pressure	N.A.
Vapours density	N.A.
Specific gravity	1,300 Kg/l
Solubility	Water soluble
Partition coefficient: n-octanol/water	N.A.
Ignition temperature	N.A.
Decomposition temperature	N.A.
Viscosity	N.A.
Explosive properties	N.A.
Oxidizing properties	N.A.

**9.2. Other information.**

VOC (Directive 1999/13/CE) :	0,00% - 0,00 g/litro
VOC (volatile carbon) :	0,00% - 0,00 g/litro

**SECTION 10. Stability and reactivity.****10.1. Reactivity.**

The product is alkaline and it reacts violently with strong and/or concentrated acids.

# COMBICLEAN

Revision n. 1

Dated 12/08/2013

Printed on 12/08/2013

Page n. 8/18

## 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. In contact with strong and/or concentrated acids may react violently.

## 10.4. Conditions to avoid.

Avoid contact with strong and/or concentrated acids. Avoid overheating, electrostatic discharge and all sources of ignition.

## 10.5. Incompatible materials.

Avoid contact with: carbon steel, aluminum, zinc, copper and its alloys, silicone. See also Section 7.

## 10.6. Hazardous decomposition products.

In case of thermal decomposition or in case of fire toxic decomposition products may be released.

## SECTION 11. Toxicological information.

### 11.1. Information on toxicological effects.

In the absence of experimental toxicological data on the product itself, the possible health hazards of the product were evaluated based on the properties of substances, according to the criteria laid down by the relevant legislation for the classification. Consider, therefore, the concentration of each substance dangerous possibly mentioned in Section 3, to assess toxicological effects resulting from exposure to the product.

a	<b>Acute toxicity</b>	Not applicable.
b	<b>Corrosivity</b>	This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapors are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and esophagus burns, sickness, diarrhea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
c	<b>Irritation</b>	See above.
d	<b>Sensitization</b>	Not applicable.
e	<b>Toxicity for repeated doses</b>	Not applicable.
f	<b>Cancerogenicity</b>	Not applicable.
g	<b>Mutagenicity</b>	Not applicable.
h	<b>Reproductive toxicity</b>	Not applicable.

Toxicological data for ingredients listed in section 3:

### SODIUM HYDROXIDE; CAS 1310-73-2

#### Acute toxicity.

LD50 (oral): > 500 mg/kg, rat  
LD50 (dermal): > 1350 mg/kg, rabbit  
LC50 (inhalation): 4800 mg/kg/1h, mouse

#### Skin corrosion / irritation.

Corrosive (tested on rat)



**COMBICLEAN**

Revision n. 1

Dated 12/08/2013

Printed on 12/08/2013

Page n. 9/18

**Serious eye damages / eye irritation.**

Corrosive (determined on rabbit eyes)

**Respiratory or dermal sensitization.**

Not sensitizing effect known

**Germ cell mutagenicity.**

No mutagenic effect known.

**Cancerogenicity.**

No carcinogenic effect known

**Toxicity for reproduction**

No toxic effect for reproduction known

**Specific toxicity for target organs (STOT) – single exposure.**

No data available.

**Specific toxicity for target organs (STOT) – repeated exposure.**

No data available

**Aspiration hazard.**

No data available

**ACID PHOSPHONIC POLYMER; CAS N.A.****Acute toxicity.**LD50 (oral): > 2000 mg/kg, rat  
LD50 (dermal): no data available  
LC50 (inhalation): no data available**Skin corrosion / irritation.**

Corrosive to skin and mucosa (OECD 404)

**Serious eye damages / eye irritation.**

Highly corrosive (OECD 405)

**Respiratory or dermal sensitization.**

Not sensitizing effect known

**Germ cell mutagenicity.**

No data available

**Cancerogenicity.**

No data available

**Toxicity for reproduction**

No data available

**Specific toxicity for target organs (STOT) – single exposure.**

No data available.

**Specific toxicity for target organs (STOT) – repeated exposure.**

No data available

**Aspiration hazard.**

No data available

**ALCILIC ETHER OF CARBOXYLIC ACID; CAS N.A.****Acute toxicity.**LD50 (oral): > 2000 mg/kg, rat  
LD50 (dermal): no data available

# COMBICLEAN

Revision n. 1  
Dated 12/08/2013  
Printed on 12/08/2013  
Page n. 10/18

LC50 (inhalation): no data available

## Skin corrosion / irritation.

Irritant to skin

## Serious eye damages / eye irritation.

Risk of serious damages to eyes

## Respiratory or dermal sensitization.

No data available

## Germ cell mutagenicity.

No data available

## Cancerogenicity.

No data available

## Toxicity for reproduction

No data available

## Specific toxicity for target organs (STOT) – single exposure.

No data available.

## Specific toxicity for target organs (STOT) – repeated exposure.

No data available

## Aspiration hazard.

No data available

## SECTION 12. Ecological information.

The following evaluation has been carried out on the basis of ecological data available for the individual ingredients and according to their amount using the calculation methods proposed by the European directives on the classification of dangerous preparations in their latest version. Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

### 12.1. Toxicity.

#### Aquatic toxicity

#### SODIUM HYDROXIDE; CAS 1310-73-2

LC50 (96h): 35 mg/l Fish  
EC50 (48h): 40,4 mg/l Ceriodaphnia dubia

#### ACID PHOSPHONIC POLYMER; CAS N.A.

No data available.

#### ALCILIC ETHER OF CARBOXYLIC ACID; CAS: N.A.

LC50 (96h): > 100 mg/l Fish

### 12.2. Persistency and biodegradability.

#### SODIUM HYDROXIDE; CAS 1310-73-2

Biodegradability: Not applicable.

#### ACID PHOSPHONIC POLYMER; CAS N.A.

Biodegradability: 50% (OECD 302B)

Regulation (CE) n. 648/2004 and 907/2006

**COMBICLEAN**

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 and subsequent amendments on detergents. All data are held at the disposal of the competent authorities of the Member States and will be made, at their direct request or at the request of a detergent manufacturer to these authorities.

Comply with the limits for discharges imposed by local regulations.

**12.3. Bioaccumulative potential.**

The ingredients in this product have a low bio-concentration factor.

**12.4. Soil mobility**

Given the complete solubility in water of the product the mobility in soil is very high.

**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 if possible. Must not be disposed of with household waste. Do not empty into drains. Any residual product should be disposed of according to applicable regulations turning to authorized companies. Operate in accordance with the provisions of Directive 2008/98/EC.

This product can not be established any number key for waste under the European Waste Catalogue (EWC) since the assignment is permitted only on the basis of the intended purpose and the use made by the consumer.

The waste key number must be arranged with an approved waste management which should be entrusted with the disposal, in compliance with national and local regulations.

**13.2. Appropriate methods for packaging disposal.**

The containers and packing materials contaminated with dangerous substances or preparations must be treated like the product and sent for recovery or disposal in compliance with local waste management regulations.

Dissolve any residual product in water and dispose of the contaminated liquid resulting in compliance with the regulations in force. After effective remediation packs may be disposed of as non-hazardous waste.

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

UN 1719

**14.2. UN proper shipping name**

ADR-RID-AND IMDG-IATA/IACAO: CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)

**14.3. Transport hazard class(es)**

ADR-RID-AND IMDG-IATA/IACAO: 8

**14.4. Packing group**

ADR-RID-AND IMDG-IATA/IACAO: II

**14.5. Environmental hazards**

ADR-RID-AND-IATA/IACAO: NO  
IMDG: NO

**14.6. Special precautions for users**

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the requirements in the current edition of the ADR And the applicable national regulations. The goods must be packed in their original, or in packagings in packagings made of materials resistant to their content and not likely to generate dangerous reactions. People loading and unloading dangerous goods must have received appropriate training about the risks deriving from these substances and the actions that must be taken in case of emergency situations. Please note that the securing of the load must be carried out according to the instructions in Section 7.5.7.1 of the ADR code.

**COMBICLEAN**

ADR (tunnel code of restrictions): (E)

EMS number: F-A, S-B

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code  
N.A.

**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.

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. 689/2008:

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 % anionic surfactants, phosphonates

International norms.

Directive 67/548/CEE and following modifications and amendments

Directive 1999/45/CE and following modifications and amendments

Regulation (CE) 1907/2006 (REACH)

Regulation (CE) 1272/2008 (CLP)

Regulation (CE) 790/2009 (I Atp. CLP)

Regulation (CE) 453/2010

Directive (CE) 2008/98

**15.2. Chemical safety assessment.**

Substances in the mixture for which a chemical safety assessment is available:

SODIUM HYDROXIDE

**COMBICLEAN****SECTION 16. Other information.****16.1. Uses advised against and other data.**

The existing working conditions at the user workplace are out of our knowledge or control. The user is therefore responsible for the observance of all required statutory provisions.

**16.2. Extended texts of hazard (H) and the risk phrases (R).**

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

<b>Skin Corr. 1A</b>	Skin corrosion, category 1A
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H315</b>	Causes skin irritation.

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

<b>R34</b>	CAUSES BURNS.
<b>R35</b>	CAUSES SEVERE BURNS.
<b>R38</b>	IRRITATING TO SKIN.
<b>R41</b>	RISK OF SERIOUS DAMAGE TO EYES.

**16.3. 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%
- N.A.: Non available
- 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.

**16.4. General bibliography.**

**COMBICLEAN**

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. The Merck Index. - 10th Edition
9. Handling Chemical Safety
10. Niosh - Registry of Toxic Effects of Chemical Substances
11. INRS - Fiche Toxicologique (toxicological sheet)
12. Patty - Industrial Hygiene and Toxicology
13. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
14. 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.

**ANNEX. Exposure scenario for ingredients**

**COMBICLEAN**

**Brenntag S.p.A.**



**SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006**

**sodium hydroxide**

Version 6.0

Print Date 16.01.2013

Revision Date 16.01.2013

**1. Short title of Exposure Scenario 2: Professional use**

Main User Groups	SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Process categories	<p>PROC1: Use in closed process, no likelihood of exposure  PROC2: Use in closed, continuous process with occasional controlled exposure  PROC3: Use in closed batch process (synthesis or formulation)  PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises  PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)  PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities  PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities  PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  PROC10: Roller application or brushing  PROC11: Non industrial spraying  PROC13: Treatment of articles by dipping and pouring  PROC15: Use as laboratory reagent</p>
Environmental Release Categories	<p>ERC8a: Wide dispersive indoor use of processing aids in open systems  ERC8b: Wide dispersive indoor use of reactive substances in open systems  ERC8d: Wide dispersive outdoor use of processing aids in open systems  ERC9a: Wide dispersive indoor use of substances in closed systems</p>

**2.1 Contributing scenario controlling environmental exposure for: ERC8a, ERC8b, ERC8d, ERC9a**

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
Other given operational conditions affecting environmental exposure	Continuous exposure	
Technical conditions and measures at process level (source) to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	Application Area	Professional use
	Water	Regular control of the pH value during introduction into open waters is required.,In general discharges should be carried out such that pH changes in receiving surface waters are minimised.,In general most aquatic organisms can tolerate pH values in the range of 6-9. This is also reflected in the description of standard OECD tests with aquatic organisms.,Risk management measures related to the environment aim to avoid discharging the substance into municipal wastewater or to surface water, in case such discharges are expected to cause significant pH changes.

PA100920\_002

14/19

EN

**COMBICLEAN**

**Brenntag S.p.A.**



*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006*

**sodium hydroxide**

Version 6.0

Print Date 16.01.2013

Revision Date 16.01.2013

Conditions and measures related to external treatment of waste for disposal	Disposal methods	Waste should be reused or discharged to the industrial wastewater and further neutralized if needed.
---	------------------	--

**2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15**

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
	Physical Form (at time of use)	liquid
	Physical Form (at time of use)	Solid, low dustiness
Frequency and duration of use	Frequency of use	8 hours/day
	Frequency of use	200 days/year
Technical conditions and measures to control dispersion from source towards the worker	Application Area	Professional use
	Use of pliers, grip arms with long handles with manual use to avoid direct contact and exposure by splashes (no working over one's head) Where possible use of specific dispensers and pumps specifically designed to prevent splashes/spills/exposure to occur.	
Organisational measures to prevent /limit releases, dispersion and exposure	Application Area	Professional use
	Replacing, where appropriated, manual processes by automated and/or closed processes. This would avoid irritating mists, sprayings and subsequent potential splashes. Workers in the risky process/areas identified should be trained a) to avoid to work without respiratory protection and b) to understand the corrosive properties and, especially, the respiratory inhalation effects and c) to follow the safety procedures instructed by the employer. The employer has also to ascertain that the required PPE is available	
Conditions and measures related to personal protection, hygiene and health evaluation	Application Area	Professional use
	In case of dust or aerosol formation: use respiratory protection with approved filter (P2) Wear chemically resistant gloves. material: butyl-rubber, PVC, polychloroprene with natural latex liner, material thickness: 0.5 mm, breakthrough time: >480 min material: nitrile-rubber, fluorinated rubber, material thickness: 0.35-0.4 mm, breakthrough time: > 480 min If splashes are likely to occur: wear tightly fitting safety goggles, face-shield Wear suitable protective clothing, aprons, shield and suits Rubber or plastic boots	

**3. Exposure estimation and reference to its source**

PA100920\_002 15/19 EN



**COMBICLEAN**

**Brenntag S.p.A.**



*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006*

**sodium hydroxide**

Version 6.0

Print Date 16.01.2013

Revision Date 16.01.2013

**Environment**

The aquatic effect and risk assessment only deals with the effect on organisms/ecosystems due to possible pH changes related to OH<sup>-</sup> discharges, as the toxicity of the metal ion is expected to be insignificant compared to the (potential) pH effect. The high water solubility and very low vapour pressure indicates that the substance will be found predominantly in water. When the risk management measures related to the environment are implemented, there is no exposure to the activated sludge of a sewage treatment plant and there is no exposure to the receiving surface water. The sediment compartment is not considered, because it is not relevant for the substance. If emitted to the aquatic compartment, sorption to sediment particles will be negligible. Significant emissions to air are not expected due to the very low vapour pressure of the substance. If emitted to air as a water-based aerosol, the substance will be rapidly neutralised as a result of its reaction with CO<sub>2</sub> (or acids). Significant emissions to the terrestrial environment are not expected. The sludge application route is not relevant for the emission to agricultural soil, as no sorption of the substance to particulate matter will occur in STPs/WWTPs. If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH<sup>-</sup> will be neutralised in the soil pore water or the pH may increase. Bioaccumulation will not occur.

**Workers**

Used ECETOC TRA model.

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC19, PROC23, PROC24	liquid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,17mg/m <sup>3</sup>	---
PROC1, PROC2	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,01mg/m <sup>3</sup>	---
PROC3, PROC15	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,1mg/m <sup>3</sup>	---
PROC4, PROC5, PROC11, PROC14	solid, no respiratory protection (RPE)	worker inhalation, acute - local	0,2mg/m <sup>3</sup>	---
PROC8a, PROC8b, PROC9,	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,5mg/m <sup>3</sup>	---

PA100920\_002

16/19

EN

**COMBICLEAN**

**Brenntag S.p.A.**



*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006*

**sodium hydroxide**

Version 6.0

Print Date 16.01.2013

Revision Date 16.01.2013

PROC10, PROC13, PROC19				
PROC23	solid, with RPE (90%)	worker inhalation, acute - local	0,4mg/m <sup>3</sup>	---
PROC24	solid, with RPE (90%)	worker inhalation, acute - local	0,5mg/m <sup>3</sup>	---

This substance is corrosive. For the handling of corrosive substances and formulations, immediate dermal contacts occur only occasionally and it is assumed that repeated daily dermal exposure can be neglected. Dermal exposure to the substance was not quantified. The substance is not expected to be systemically available in the body under normal handling and use conditions. Systemic effects of NaOH after dermal or inhalation exposure are not expected to occur. Based on workplace measurements and following the proposed risk management measures controlling worker and professional exposure, the inhalation exposure is below the DNEL.

**4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This has to be done by showing that they limit the inhalation and dermal exposure to a level below the respective DNEL (given that the processes and activities in question are covered by the PROCs listed above) as given below  
 If measured data are not available, the DU may make use of an appropriate scaling tool such as ECETOC TRA. Important note: By demonstrating a safe use when comparing exposure estimates with the long-term DNEL, the acute DNEL is therefore also covered (according to R.14 guidance, acute exposure levels can be derived by multiplying long-term exposure estimates by a factor of 2).

**Additional good practice advice beyond the REACH Chemical Safety Assessment**

Local exhaust ventilation is not required but good practice.  
 General ventilation is good practice unless local exhaust ventilation