

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 – Annex II modified

Product: **R N°5** Page: 1/23
Date: 17/11/2015 Version: 2.10 Cancels and replaces: 2.00

1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 - Product identifier

Trade name: **R N°5**
Usual chemical name: None.
Reach number: Not concerned (mixture).

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

Use of the preparation: Cleaner.

1.3 - Details of the supplier of the safety data sheet

Supplier: **GREENSOLUTION.PRO** Phone: 32 (0)495/ 82 20 81.
Brussels Capital District – E-mail: pierreromain@live.be
OFFICE www.greensolution.pro
rue Langeveld, 49/15
1180 Uccle - Belgium

Contact person SDS: **GREENSOLUTION.PRO** Phone: 32 (0)495/ 82 20 81.
Brussels Capital District – E-mail: pierreromain@live.be
OFFICE www.greensolution.pro
rue Langeveld, 49/15
1180 Uccle - Belgium

1.4 - Emergency telephone number

Country	Official authority	Adress	Emergency tel. N°
BELGIUM	Centre Anti-Poisons/Antigifcentrum – Hôpital Militaire Reine Astrid - Bruxelles	www.centreantipoisons.be	+32 70 245 245
FRANCE	Centre Antipoison et de Toxicovigilance de Paris – Hôpital Fernand Widal 24/24h	www.centres-antipoison.net	+33 1 40 05 48 48
FRANCE	INRS – Institut National de Recherche et de Sécurité	www.inrs.fr	+33 1 45 42 59 59
GREECE	Poisons Information Centre – Children's Hospital "Aglaia. Kyriakou"	11527 Athens	+30 1 07 79 37 77
ITALIA	Centro Antiveleni Ospedale Niguarda (MI) 24 ore su 24	www.centroantiveleni.org	+39 02 66 10 10 29
NETHERLANDS	Nationaal Vergiftigingen Informatie Centrum – Utrecht	www.vergiftigingen.info	+31 3 02 74 88 88
SPAIN	Número telef. de emergencia 24 Horas Instituto Nacional de Toxicología		+34 9 00 18 15 66 +34 9 15 62 04 20
WORLDWIDE	World directory of poisons centres (Yellow Tox)	Website – WHO-OMS	www.who.int/ipcs/poisons/centre/directory/en

2 - HAZARDS IDENTIFICATION

The mixture is regulated in agreement with the European Regulation 1272/2008/EC, its adaptations and its annexes.

2.1 - Classification of the substance or mixture

Classification (Regulation (EC) No 1272/2008) and its adaptations

Corrosive to metals, Category 1, (Met. Corr. 1, H290).

Skin corrosion, Category 1B, (Skin Cor. 1B, H314)

Serious eye damage, Category 1, (Eye Dam. 1, H318).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

For the full text of the H-Statements mentioned in this Section, see Section 16

Classification (Directives 67/548/EEC, 1999/45/EC) and adaptations

Corrosive to metals.

Corrosive for the eyes and the skin (C, R34).

Corrosive for the eyes, (Xi, R41).

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This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

For the full text of the R-phrases mentioned in this Section, see Section 16.

Principal hazards:

Harmful effects on health: Corrosive for the eyes and the skin.
 Cause burns.
 Risk of serious damage to eyes.

Effects on the environment: Not classified as dangerous for the environment.
 Basic mixture: The damaging effects are mostly a consequence of the increase in pH.

Physical and chemical hazards: Corrosive to metals.
 Reacts with the majority of usual metals with hydrogen release. Hydrogen gas is an explosive and highly flammable product.
 Exothermic reactions in contact with water and strong acids.

Classification system: The classification corresponds to current EEC lists and is completed by indications extracted from specialized publications and indications supplied by the suppliers.

2.2 - Label elements

Detergent mixture (see section 15).*

Label according Regulation (EC) No 1272/2008 and its adaptations

Hazard Pictograms



GHS05

Signal word

DANGER

Hazard statements and supplemental hazard information

H290: May be corrosive to metals.
 H314: Causes severe skin burns and eye damage.

Precautionary statements - Prevention:

P102: Keep out of reach of children.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P264: Wash thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response:

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P310: Immediately call a POISON CENTER or doctor/physician.
 P363: Wash contaminated clothing before reuse.
 P390: Absorb spillage to prevent material damage.

Precautionary statements - Storage:

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P405: Store locked up.

Precautionary statements - Disposal

P501: Dispose of contents/container to an approved waste disposal plant, in accordance with local/regional/national/international regulation.

Component to be mentioned on the label:

Contains Hexyl D-Glucoside (CAS 54549-24-5), Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy- (Cas 160875-66-1), Tetrapotassium pyrophosphate (CAS 7320-34-5), Sodium hydroxide (CAS 1310-73-2), Potassium hydroxide (CAS 1310-58-3), Disodium metasilicate (CAS 6834-92-0).

Label according Regulation EC No 648/2004 and its amendments

< 5 % - Non-ionic surfactants.

< 5 % - Phosphates.

< 5 % - Polycarboxylates.

2.3 - Other hazards

Physical-Chemical Properties:

Can be corrosive for metals. The contact with strong acids can cause violent reactions or explosion. Exothermic reaction with water.

Properties affecting health:

No other hazard was highlighted currently.

3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.2 - Mixtures

Chemical nature: Alkaline cleaner.

Hazardous ingredients:

Substance	CAS N°	EC N°	REACH N°	Index EC N°	% w/w
Hexyl D-Glucoside	54549-24-5	259-217-6	01-2119492545-29		≤ 3 %
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1	NLP *605-233-7	Detergent 02-2119549160-47		≤ 2 %
Tetrapotassium pyrophosphate	7320-34-5	230-785-7	01-2119489369-18		≤ 2 %
Sodium hydroxide	1310-73-2	215-185-5	01-2119457892-27	011-002-00-6	≤ 1.5 %
Potassium hydroxide	1310-58-3	215-181-3	01-2119487136-33	019-002-00-8	≤ 1 %
Disodium metasilicate (Na ₂ O ₃ Si)	6834-92-0	229-912-9	01-2119449811-37	014-010-00-8	≤ 1 %

* Substances without an existing EC: EC-number has been provided to make registration easier.

Substance	CAS N°	OEL	Classification in accordance with Directive 67/548/CE	Classification in accordance with Regulation 1272/2008/CE	% w/w
Hexyl D-Glucoside	54549-24-5		Xi; R41	Eye Dam. 1 – H318	≤ 3 %
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1		Xn ; R22 Xi ; R41	Acute Tox. 4, – H302 Eye Dam./Irrit. 1 – H318	≤ 2 %
Tetrapotassium pyrophosphate	7320-34-5		Xi ; R36/37/38	Eye Irrit. 2 – H319 Skin Irrit. 2 – H315 STOT SE 3 – H335	≤ 2 %

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Substance	CAS N°	OEL	Classification in accordance with Directive 67/548/CE	Classification in accordance with Regulation 1272/2008/CE	% w/w
Sodium hydroxide	1310-73-2	VLE France : 2 mg/m ³ . TLV-TWA USA : 2 mg/m ³ Skin Corr. 1A : H314: C ≥5 % Skin Corr. 1B H314: 2 % ≤C <5 % Skin Irrit. 2 : H315: 0,5% ≤C <2% Eye Irrit. 2 : H319: 0,5% ≤C <2%	C ; R35	Skin Corr. 1A – H314 Met. Corr. 1 – H290	≤ 1.5 %
Potassium hydroxide	1310-58-3	VLE France : 2 mg/m ³ . TLV-TWA USA : 2 mg/m ³ Skin Corr. 1A : H314: C ≥5 % Skin Corr. 1B H314: 2 % ≤C <5 % Skin Irrit. 2 : H315: 0,5% ≤C <2% Eye Irrit. 2 : H319: 0,5% ≤C <2%	Xn ; R22 C ; R35	Acute Tox. 4 – H302 Skin Corr. 1A – H314 Met. Corr. 1 – H290	≤ 1 %
Disodium metasilicate (Na ₂ O ₃ Si)	6834-92-0		C ; R34 Xi ; R37	Skin Corr. 1B – H314 STOT SE 3 – H335 Met. Corr. 1 – H290	≤ 1 %

For the full text of the hazard class(es), R and H phrases mentioned in this Section, see Section 16.

Complementary data*:

All components of this preparation are approved for Food Contact.
The mixture composition is shown for health, safety and environmental use and is not intended to form any part of a specification.

4 - FIRST AID MEASURES

4.1 - Description of first aid measures

General advice:

Immediately remove contaminated clothing and shoes.

Inhalation:

In case of serious inhalation, remove the subject from the contaminated zone and bring it to the fresh air.

Give/administer oxygen or pulmonary resuscitation if necessary.

If the person is unconscious, place in side position of safety and call a medical ambulance.

If the symptoms persist, obtain immediately medical advice.

Skin contact:

Immediately remove contaminated clothing and shoes.

Wash immediately and abundantly affected area with soap and plenty of water.

Contact a doctor if skin irritation appears.

Eye contact:

Immediately flush eyes with large amounts of running water for at least 15 minutes, holding eyelids open.

Check for and remove any contact lenses after the first 5 minutes. Continue to wash with water holding eyelids open, for at least 15 minutes.

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Ingestion: In all the cases, consult an ophthalmologist, even in the absence of apparent damage.
Do not induce vomiting.
Only when conscious, rinse mouth with water; give plenty of water to drink (approx. 500 ml).
Obtain medical attention immediately.

Protection of the first aid responders: The first-aid responders will have to take precautions to avoid the exposure and to carry protection equipment.

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

Symptoms: Irritations. Redness. Burns.

Inhalation*: May cause burn of the mucous membranes. May cause irritation of respiratory tract

Skin contact: Corrosive for the skin. Causes severe burns. Redness, pain. Tissue swelling. Untreated wounds from corrosion of the skin heal slowly and with difficulty.
Projections may cause severe burns whose severity depends on the time of contact with the preparation.
Skin irritation, if untreated may be prolonged and serious (eg necrosis). This may be prevented by early treatment with medium strength corticosteroids.

Eye contact: Corrosive for the eyes. Causes severe burns. Risk of serious permanent eye damage if the product is not removed quickly.
Irritation, whimpering, redness.
Prompt action is essential for eye contact. Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

Ingestion: Severe burns of the mouth, throat and gastrointestinal tract, as well as a danger of perforation of the oesophagus and the stomach. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea.

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

Medical information: In case of splashing into the eyes and face, treat eyes first.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
No specific antidote. Symptomatic treatment and supportive therapy as indicated.

5 - FIREFIGHTING MEASURES

5.1 - Extinguishing media

Suitable extinguishing media: Water spray, Dry power, Foam, Carbon dioxide.
Unsuitable extinguishing media: Water jet may be ineffective when they are not used by competent people.

5.2 - Special hazards arising from the substance or mixture

Special exposure hazard in fire: Thermal decomposition giving toxic products such as carbon oxides, phosphorus oxides, potassium oxide, nitrogen oxides and toxic and irritating fumes.

Explosion Hazards: In contact with certain metals, releases of hydrogen gas that is an explosive and highly flammable product.

Hazardous reactions: Exothermic reactions in contact with water and acids.

5.3 - Advice for firefighters

Required special equipment: Fire-protective clothing and self-contained breathing apparatus.
Additional indications: Do not breathe fumes.

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Do not penetrate in the zone of fire without protection equipment, including a respiratory protection.

Use water spray to cool fire-exposed containers.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6 - ACCIDENTAL RELEASE MEASURES

6.1 - Personal precautions, protective equipment and emergency procedures

General Information:

Avoid direct contact with released material.

Evacuate non-essential personnel.

Ensure adequate ventilation.

Keep away materials and products which are incompatible with the product.

Risk for slippery floors if spilled out.

Advice for non-emergency personnel: Do not touch or walk through spilled material.

Avoid all unnecessary exposure.

Avoid contact with skin and eyes.

Avoid inhalation of gases, vapours, fumes or aerosols.

If spillage occurs on the public highway, indicate the danger and notify the local authorities.

Evacuate and limit access.

Advice for emergency responders: For personal protection see section 8.

If spillage occurs on the public highway, indicate the danger and notify the local authorities.

Evacuate the danger area.

Stop the leak.

Use water spray to disperse gas or vapour.

Personal precautions:

Avoid inhalation of gases, vapours, fumes or aerosols.

Avoid contact with skin and eyes.

Remove contaminated clothes as soon as possible.

In case of large spillage, the cleaning procedure should be carried out using suitable protective clothing such as overall, gloves and boots.

6.2 - Environmental precautions

Prevent from spills to enter and spread into soil, drain, and drinking waters by absorption of the leaking product on an inert material.

Do not reject as such into the natural environment or water without preliminary neutralization to pH 7.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 - Methods and material for containment and cleaning up

Methods for Containment:

Keep away materials and products which are incompatible with the product.

Shut off leaks, if possible without personal risks.

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, Kieselguhr, vermiculite).

Recover the product in a salvage container suitably labelled and alkali resistant.

Dispose according to local / national regulations (see Section 13).

Methods for cleaning up:

Neutralise residues carefully with diluted acid solution.

Wash the non-recoverable remainder with plenty of water.

Do not flush into surface water or sanitary sewer system. Transfer recovered product and other materials to suitable tanks or containers and store/dispose according to relevant regulations.

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6.4 - Reference to other sections

Personal protective equipment: See section 8.
Waste disposal: See section 13.

7 - HANDLING AND STORAGE

7.1 - Precautions for safe handling

Technical measures: Provide water supplies, eyewash fountains and safety showers in the vicinity.
Wear suitable protective clothing, gloves and chemical goggles.
Ensure proper ventilation, especially in confined areas.
Avoid inhalation of gases, vapours, fumes or aerosols.
Keep away from incompatible product.
Do not use materials not resistant to alkali.

Fire and explosion protection: Usual preventive measures for the fire-protection.
Keep away from incompatible product.
Avoid contact with water, acids, and strong oxidising agents.
Avoid any contact with metals.
Keep away from sources of ignition. No smoking.

Precautions to be taken: Wear self-protective equipment.
Avoid any direct contact with eyes and skin.
Do not swallow.
Do not breathe gas/fumes/vapours/spray.

Other cautions: Handle in accordance with the general rules of industrial safety.
Avoid any spillage onto the floor.
Keep the place and working area in perfect cleanliness.
In case of dilution, add the product in water, never the reverse (risk of projections).
Handle and open the container with prudence.
Do not mix with incompatible materials (see list in section 10).

Hygiene practice: Remove immediately from skin, eyes and clothing.
Wash immediately any affected parts of the body.
When using do not eat, drink or smoke.
Keep away from food, drink and animal feeding stuffs.
Remove immediately soaked or soiled clothing.
Dry-clean contaminated clothes before reuse.

7.2 - Conditions for safe storage, including any incompatibilities

Technical measures: Do not withdraw the danger labels of the containers (even if they are empty).
Use alkali resistant utensils.

Storage conditions:
Recommended: Keep away from heat sources.
Store only in the origin container, hermetically sealed, in a fresh, dry and well ventilated place.
Protect from the strong heat and direct sunlight.
Keep away from food, drink and animal feeding stuffs.

Incompatible matters: Avoid any contact with strong acids, strong oxidising agents and metals.
React with copper, aluminium, zinc, tin and their alloys.
See detailed list of the incompatible matters, in section 10: "Stability - reactivity".

Packing materials:
Recommended: Stainless steel; Epoxy resins coated steel; Polyethylene; Polypropylene; Polyvinyl chloride.
Not Recommended: Aluminium and its alloys.
Copper and its alloys.

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Zinc and its alloys.

Tin.

Rubber.

7.3 - Specific end use(s)

No particular or specific use of the mixture is known of the supplier to date.

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 - Control parameters

Occupational exposure limits (Europeans and French):

Substance	N° CAS	Values
Sodium hydroxide	1310-73-2	VLE France: 2 mg/m ³ . TLV-TWA USA: 2 mg/m ³ .
Potassium hydroxide	1310-58-3	VLE France: 2 mg/m ³ . TLV-TWA USA: 2 mg/m ³ .

Periodically controls of atmosphere must be carried out.

Other data:

Substance:

Hexyl D-Glucoside (CAS 54549-24-5):

Value	Notes
DNEL = 420 mg/m ³	Final use: Workers Route of exposure: Inhalation Potential effects on health: Long term - Systemic effects
DNEL = 595 g/kg pc/day	Final use: Workers Route of exposure: Dermal Potential effects on health: Long term - Systemic effects
DNEL = 124 mg/m ³	Final use: Consumers Route of exposure: Inhalation Potential effects on health: Long term - Systemic effects
DNEL = 35.7 mg/kg pc/day	Final use: Consumers Route of exposure: Oral Potential effects on health: Long term - Systemic effects
DNEL = 357 g/kg pc/day	Final use: Consumers Route of exposure: Dermal Potential effects on health: Long term - Systemic effects
PNEC = 0,176 mg/L	Fresh water
PNEC = 0.018 mg/L	Marine water
PNEC = 100 mg/L	Sewage treatment plant
PNEC = 0.722 mg/L	Fresh water sediment
PNEC = 0.072 mg/L	Marine water sediment
PNEC = 0.654 mg/kg	Soil

Tetrapotassium pyrophosphate (CAS 7320-34-5):

Value	Notes
DNEL = 2.79 mg/m ³	Final use: Workers Route of exposure: Inhalation Potential effects on health: Long term - systemic effects.

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Value	Notes
DNEL = 0.68 mg/L	Final use: Consumers Route of exposure: Inhalation Potential effects on health: Long term - systemic effects.
DNEL > 70 mg/kg pc/d	Final use: Consumers Route of exposure: Oral Potential effects on health: Long term - systemic effects.
PNEC = 0.05 mg/L	Fresh water: No long-term toxicity studies are available and therefore the PNEC is based on the lowest value from the short-term studies (>100 mg/L), the assessment factor used takes the use of short-term data and read-across data into account. (AF = 2000).
PNEC = 0.005 mg/L	Marine water: No reliable studies are available on marine species. The PNEC is therefore based on the short-term studies conducted on freshwater species. The assessment factor used takes the use of short-term data in freshwater species and read-across data into account. (AF = 20000).
PNEC = 0.5 mg/L	Intermittent release: The PNEC is based on the lowest value from the short-term studies (>100 mg/L), the assessment factor used takes the use of read-across data into account. (AF = 200).
PNEC = 50 mg/L	Sewage treatment plant: The PNEC is based on the NOEC from the ASRI study. The assessment factor used takes the use of read-across data into account and uses the assessment factor appropriate for use of a NOEC value. (AF = 20).

Sodium hydroxide (CAS 1310-73-2): INRS Toxicological Sheet n° 20

Value	Notes
DNEL = 1 mg/m ³	Final use: Workers Route of exposure: Inhalation Potential effects on health: Long term - local effects
DNEL = 1 mg/m ³	Final use: Consumers Route of exposure: Inhalation Potential effects on health: Long term - local effects

Potassium hydroxide (CAS 1310-58-3): INRS Toxicological Sheet n° 35.

Value	Notes
DNEL = 1 mg/m ³	Final use: Workers Route of exposure: Inhalation Potential effects on health: Long term - local effects
DNEL = 1 mg/m ³	Final use: Consumers Route of exposure: Inhalation Potential effects on health: Long term - local effects

Disodium metasilicate (CAS 6834-92-0): INRS Toxicological Sheet n° 259.

Value	Notes
DNEL = 6.22 mg/m ³	Final use: Workers Route of exposure: Inhalation Potential effects on health: Long term - systemic effects.

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Value	Notes
DNEL = 1.49 mg/kg pc/d	Final use: Workers Route of exposure: Dermal Potential effects on health: Long term - systemic effects.
DNEL = 1.55 mg/m ³	Final use: Consumers Route of exposure: Inhalation Potential effects on health: Long term - systemic effects.
DNEL = 0.74 mg/kg pc/d	Final use: Consumers Route of exposure: Dermal Potential effects on health: Long term - systemic effects.
DNEL = 0.74 mg/kg pc/d	Final use: Consumers Route of exposure: Oral Potential effects on health: Long term - systemic effects.
PNEC = 7.5 mg/L	Fresh water
PNEC = 1 mg/L	Marine water
PNEC = 7.5 mg/L	Intermittent release.
PNEC = 1000 mg/L	Sewage treatment plant.

8.2 - Exposure controls

Technical measures:

Provide water supplies, eyewash stations and safety showers in the vicinity. Ensure proper ventilation, especially in confined areas. Keep the place and the working stations in perfect cleanliness, clean them frequently. Avoid formation or diffusion of vapours, fumes or of aerosols in the atmosphere (particularly, when the product is loading or unloading).

Personal protective equipment:

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):



Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use.

Remove and wash contaminated clothing before re-using.

Eye protection:

Wear safety glasses with side shields or chemical goggles according to Standard EN166.

Hand protection:

Chemical protective gloves according to EN 374, Type nitrile rubber (0.7 mm layer thickness).

Skin protection:

Protective clothing.

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 465)

Dry-clean contaminated clothes before reuse.

Respiratory protection*:

Respiratory protection in case of vapour/aerosol release. Particle filter with medium efficiency for solid and liquid particles (Type P2 or FFP2).

Environmental exposure controls: Avoid environmental contamination.

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9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 - Information on basic physical and chemical properties

General indications:

Physical state:	at 20°C.
Appearance:	Liquid.
Colour:	Yellow.
Odour:	Not determined.
Odour threshold:	Not determined.

Important health, safety and environmental information

pH at 20°C:	> 10.
Melting point (°C):	No data available.
Freezing point (°C):	No data available.
Initial boiling point (°C):	No data available.
Flash point (°C):	No data available.
Evaporation rate:	No data available.
Flammability (solid, gas):	Not concerned.
Flammability (Explosive) limits:	No data available.
Vapour pressure (hPa) at 20°C:	No data available.
Vapour density (air=1):	No data available.
Relative density (g/cm ³ at 20°C):	No data available.
Solubility in water:	Soluble.
Partition coefficient: n-octanol/water: log Kow :	No data available.
Auto-ignition temperature (°C):	No data available.
Decomposition temperature (°C):	No data available.
Viscosity (mPa.s) at 20°C:	No data available.
Explosive properties:	Product is not explosive. However, formation of explosive air/gas mixtures is possible.
Oxidizing properties:	No data available.

9.2 - Other information

No other data available.

10 - STABILITY AND REACTIVITY

10.1 - Reactivity

Exothermic reaction with water and strong acids.

Gives off hydrogen by reaction with base metals (zinc, Aluminium) – Risk of explosion.

10.2 - Chemical stability

Stable under recommended handling and storage conditions (See section 7).

Product sensitive to the carbon dioxide in the air (carbonation).

10.3 - Possibility of hazardous reactions

Corrosive to many metals. Contact with light metals causes a release of hydrogen gas which can form explosive mixtures with air.

10.4 - Conditions to avoid

Can decompose at high temperatures.

Protect from frost, heat and sunlight.

10.5 - Incompatible materials*

Powerful oxidants, strong acids, alcalis, halogenated compounds, amines, ammonia, ammonium compounds, organic materials.

Reacts with copper, aluminium, zinc, tin, nickel and their alloys.

Reacts with the majority of usual metals to produce flammable hydrogen gas (ferrous metals, zinc, and aluminium are vulnerable).

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10.6 - Hazardous decomposition products*

Contact with some metals may evolve flammable/explosive hydrogen gas.

Thermal decomposition produces fumes and hazardous compounds such as: carbone oxide, phosphorus oxides, potassium oxide, nitrogen oxide and ammoniac. May generate formaldehyde at temperatures greater than 150°C (300°F).

In case of fire refer to section 5.

11 - TOXICOLOGICAL INFORMATION

11.1 - Information on toxicological effects

Toxicological information concerning the mixture:

Acute toxicity: No data on the formulation, assessment by the conventional method.
Corrosive for the eyes and the skin.

Local effects / Health effects:

Cutaneous: Corrosive. Cause severe burns.
Projections cause severe burns whose severity depends on the time of contact with the preparation.

Eye: Corrosive. Risk of serious damage to eyes.
Small splashes in the eyes can cause irreversible lesions of tissues and blindness.

Inhalation: Inhalation of aerosols may cause burns to mucous membranes.

Ingestion: Causes burns.
Danger of serious damage to health if swallowed.
Risk of burns in the mouth, the throat and the gastro-intestinal tract.

Mucous membranes: Corrosive. May cause burns to mucous membranes in the throat, oesophagus and stomach. Danger of perforation of the oesophagus and the stomach.

Chronic toxicity:

Sensitization: To our knowledge, no evidence of sensitization.

Repeated Dose Toxicity: No data available.

Carcinogenicity: To our knowledge, no carcinogenic.

Mutagenicity: To our knowledge, not mutagen.

Teratogenesis: To our knowledge, no teratogenic.

Development/reproduction: To our knowledge, no risk of lesion of the capacity of reproduction.

STOT SE/RE*: No data available.

Other data:

Toxic effect linked with corrosive properties.
Other dangerous properties for health cannot be excluded.

Toxicological information relating to the principal substances present in the product:

Hexyl D-Glucoside (CAS 54549-24-5): SDS Supplier.

Acute toxicity: LD₅₀po. (Rat): > 2 000 mg/kg.
LD₅₀pc. (Rabbit): > 2 000 mg/kg.

Local effects/ Health effects: Eyes: Risk of serious damage to eyes.

Chronic toxicity: Sensitization: No skin sensitization effects.
Mutagenicity: Not mutagen in the Ames's test.

Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy- (CAS 160875-66-1): SDS Supplier.

Acute toxicity: LD₅₀po. (Rat): > 2 000 mg/kg.
LD₅₀pc. : > 2 000 mg/kg.

Local effects/ Health effects: Skin: No skin irritation.
Eyes: Risk of serious damage to eyes.

Chronic toxicity: Sensitization: No skin sensitization effects.

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Mutagenicity: Genotoxicity in vitro: negative. Genotoxicity in vivo: negative.

Teratogenesis: > 250 mg/kg.
STOT-RE: NOEL: 250 mg/kg.

Tetrapotassium pyrophosphate (CAS 7320-34-5): SDS Supplier.

Acute toxicity: LD₅₀po. (Rat): > 2 000 mg/kg (Weight of evidence).
LD₅₀pc. (Rabbit): > 4 640 mg/kg (equivalent to OECD 402).
LC₅₀inh. (Rat, 6h): > 1.1 mg/L. (OECD 403, EU method B.2.).

Local effects: Cutaneous: Rabbit: Prolonged skin contact may cause skin irritation and/or dermatitis.
Eye: Rabbit: Irritant category II (equivalent to OECD 405)
Inhalation: May cause an irritation of the respiratory tract with cough.

Chronic toxicity: Sensitization: No sensitization.
Carcinogenicity: Not investigated (no data to suggest likelihood of carcinogenicity).
Mutagenicity: Not investigated (tetrapotassium pyrophosphate is not expected to produce germ cell genotoxic damage).
Development/reproduction: Not applicable (no evidence of reproductive toxicity based on expert assessment of all available relevant data).
STOT-SE: May cause respiratory irritation.
STOT-RE: No data available.

Sodium hydroxide (CAS 1310-73-2): SDS Supplier.

Acute toxicity: LD₅₀po. (Rat): 150 – 340 mg/kg.
LD₅₀pc. (Rabbit): 1 350 mg/kg.

Local effects: Inhalation: Corrosive for the respiratory tract. Intense irritation of the nose and the throat, cough, and difficult breathing. To high concentrations, risks of chemical broncho-pneumonia and of pulmonary oedema. In case of repeated or prolonged exposure: risk of sore throat, nose bleeds, chronic bronchitis.
Cutaneous: Serious major and extensive caustic lesions if a washing is not quickly carried out.
Eye: Serious major and extensive caustic lesions if a washing is not quickly carried out. The after-effects are frequent (glaucoma, corneal opacities, cataract...). Risk of blindness.
Ingestion: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of oesophagus and the stomach.
Inhalation: Burns of mucous membranes, Cough, Shortness of breath, damages of respiratory tract.

Chronic toxicity: Genotoxicity in vitro: Mutagenicity (mammal cell test): micronucleus. Result: negative (Lit.) – Ames test: Result: negative (IUCLID)
Teratogenicity: Did not show teratogenic effects in animal experiments. (Lit.)
STOT-SE: Not classified as specific target organ toxicant, single exposure.
STOT-RE: Not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity: Based on available data the classification criteria are not met.

Potassium hydroxide (CAS 1310-58-3): SDS Supplier.

Acute toxicity: LD₅₀po. (Rat): 275 mg/kg.
LD₅₀pc. (Rabbit): 1 350 mg/kg.

Local effects: Inhalation: Intense irritation and caustic lesions of mucus membranes of eyes and respiratory tract.

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Ingestion: Harmful if swallowing. Oral, retro-sternal and epigastric pains. The vomiting is frequent and sometimes bloody.
Examinations of the oral cavity reveal almost always severe burns.
If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Cutaneous (Rabbit): Very corrosive. Cause burns. Caustic lesions, light burns, slow cure and sometimes retractile scars. The gravity of the lesions depends on the quantity applied, the concentration and the time of contact.
Eye (Rabbit): Very corrosive. Serious damage to eyes. Severe burns of different tissues of the eye with a risk of after-effects (corneal opacities, glaucoma, cataract).
Chronic toxicity: Sensitization (Guinea pig): No skin sensitization effects.
Mutagenicity: Not mutagenic.
Carcinogenicity: Estimated not carcinogenic.
Development/reproduction: Animals studies show that this substance has no adverse reproductive effect.
STOT-SE: Not classified as specific target organ toxicant, single exposure.
STOT-RE: Not classified as specific target organ toxicant, repeated exposure.

Disodium metasilicate (CAS 6834-92-0): SDS Supplier.

Acute toxicity: LD₅₀p.o. (Rat): 1 152 – 1 350 mg/kg.
LD₅₀pc. (Rabbit): >5 000 mg/kg.
LC₅₀inh. (Rat, 6h): 2.06 mg/m³.
Local effects: Skin (Rabbit): Corrosive. (OECD 404)
Eye (Rabbit): Corrosive. Risk of serious damage to eyes.
Inhalation: Irritation of the respiratory system.
Ingestion: Burns of the mouth, the throat and the stomach, due to the corrosive alkalinity of the product. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Chronic toxicity: Sensitization: No skin sensitization (Solution at 30% weight).
Carcinogenicity: Does not contain any compound listed as a carcinogen or potential carcinogen.
Mutagenicity: Not mutagenic (*in vitro*). Does not contain any ingredient listed as a mutagen.
Teratogenicity: Not considered to be teratogenic.
Reproductive toxicity: Contains no ingredient listed as toxic to reproduction.
STOT-SE: May cause respiratory irritation.
STOT-RE: Not classified as specific target organ toxicant, repeated exposure.
NOAELoral (Rat): 227 mg/kg bw /day
NOAELoral (Mousse): 260 mg/kg bw /day

12 - ECOLOGICAL INFORMATION

12.1 - Toxicity

Information concerning the mixture:

No data on specific toxicity to soil organisms, plants and terrestrial and aquatic animals are available.
The product is a preparation. See below the information available for the main substances contain in the product.
Acute ecotoxicity: No data on the formulation.
The product does not contain any substance classified dangerous for the environment however, the product is alkali and could increase the pH (earth, water).
Chronic ecotoxicity: No data on the formulation.

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Impact on sewage treatment plants: The product is alkaline and does not have to arrive at the sewage treatment plant without preliminary neutralization.
Small quantities can be neutralized in adapted biological sewage treatment plant.

Information relating to the principal substances present in the mixture:

Substance	CAS N°	Data	References
Hexyl D-Glucoside	54549-24-5	LC ₅₀ (96h/ <i>Oncorhynchus mykiss</i>): > 100 mg/L	SDS supplier
		EC ₅₀ (48h/ <i>Daphnia magna</i>): > 100 mg/L	SDS supplier
		NOEC (21d/ <i>Daphnia magna</i>): > 1 – 10 mg/L	SDS supplier
		IC ₅₀ (72h/ <i>Scenedesmus quadricauda</i>): > 100 mg/L	SDS supplier
		NOEC (72h/ Algae): > 100 mg/L	SDS supplier
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1	LC ₅₀ (96h/ <i>Oncorhynchus mykiss</i>): > 10 – 100 mg/L	SDS supplier
		EC ₅₀ (48h/ <i>Daphnia magna</i>): > 10 – 100 mg/L	SDS supplier
		IC ₅₀ (72h/ Algae): > 10 – 100 mg/L	SDS supplier
Tetrapotassium pyrophosphate	7320-34-5	LC ₅₀ (96h/ <i>rainbow trout</i>): > 100 mg/L ⁽¹⁾ .	OECD 203 SDS supplier
		EC ₅₀ (24h/ <i>Daphnia magna</i>): > 100 mg/L.	EPA OTS 797.1300 SDS supplier
		EC ₅₀ (72h/ Algae): > 100 mg/L.	SDS supplier
		EC ₅₀ (3h/ Activated sludge): > 1 000 mg/L ⁽¹⁾ .	OECD 209 SDS supplier
Sodium hydroxide	1310-73-2	LC ₅₀ (96h/ <i>Oncorhynchus mykiss</i>): 45.4 mg/L	SDS supplier
		LC ₅₀ (96h/ <i>Gambusia affinis</i>): 125 mg/L	SDS supplier
		EC ₅₀ (24h/ <i>Daphnia magna</i>): 76 mg/L	SDS supplier
		EC ₅₀ (48h/ <i>Ceriodaphnia</i>): 40.4 mg/L	SDS supplier
		IC ₅₀ (15 min/ <i>Photobacterium phosphoreum</i>): 22 mg/L	SDS supplier
Potassium hydroxide	1310-58-3	LC ₅₀ (96h/ <i>Fathead Minnow</i>): 179 mg/L	SDS supplier
		LC ₅₀ (96h/ <i>Gambusia affinis</i>): 80 mg/L	SDS supplier
		EC ₅₀ (24h/ <i>Daphnia magna</i>): 270 mg/L	SDS supplier
		IC ₅₀ (15 min./ <i>Photobacterium phosphoreum</i>): > 22 mg/L.	SDS supplier
Disodium metasilicate (Na ₂ O ₃ Si)	6834-92-0	LC ₅₀ (96h/ <i>Brachydanio rerio</i>): 210 mg/L	SDS supplier
		EC ₅₀ (48h/ <i>Daphnia magna</i>): 1 700 mg/L	SDS supplier
		EC ₅₀ (72h/ <i>Scenedesmus subspicatus</i>): Biomass: 207 mg/L Growth rate: 345.4 mg/L	SDS supplier

(1) Values estimated from tests carried out on similar products.

12.2 - Persistence and degradability

Information concerning the mixture:

Biodegradation: Readily Biodegradable.

Information relating to the principal substances present in the mixture:

Substance	CAS N°	BOD –ThOD – COD	References
Hexyl D-Glucoside*	54549-24-5	Readily Biodegradable > 70 % (28 d)	OECD 301D SDS supplier
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1	Readily Biodegradable > 60 % (28 d)	OECD 301B SDS supplier
Tetrapotassium pyrophosphate	7320-34-5	The methods for determining biodegradability are not applicable to inorganic substances	SDS supplier
Sodium hydroxide	1310-73-2	The methods for determining biodegradability are not applicable to inorganic substances	SDS supplier

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Substance	CAS N°	BOD –ThOD – COD	References
Potassium hydroxide	1310-58-3	The methods for determining biodegradability are not applicable to inorganic substances. Degradation by the atmospheric carbon dioxide.	SDS supplier
Disodium metasilicate (Na ₂ O ₃ Si)*	6834-92-0	Inorganic compound Non Applicable. In aqueous solution of pH < 9 the silicate is mineralized and precipitated. The maximal concentration of soluble silicate in this pH is 120 mg/L.	SDS supplier

12.3 - Bioaccumulative potential

Information concerning the mixture:

Bioaccumulation: Not anticipated to bio-accumulate according to SDS of the substances suppliers.

Information relating to the principal substances present in the mixture:

Substance	CAS N°	log Kow – BCF	References
Hexyl D-Glucoside	54549-24-5	Bioaccumulation in the organisms is not anticipated (log Pow <= 4.)	SDS supplier
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1	Bioaccumulation in the organisms is not anticipated.	SDS supplier
Tetrapotassium pyrophosphate	7320-34-5	Minimal	SDS supplier
Sodium hydroxide	1310-73-2	Not bioaccumulable	SDS supplier
Potassium hydroxide	1310-58-3	Not bioaccumulable	SDS supplier
Disodium metasilicate (Na ₂ O ₃ Si)	6834-92-0	Not bioaccumulable	SDS supplier

12.4 - Mobility in soil

Information concerning the mixture:

This preparation has high water solubility, therefore it is likely to distribute predominantly to the aqueous environment.

Information relating to the principal substances present in the mixture:

Substance	CAS N°	Data	References
Hexyl D-Glucoside	54549-24-5	Remains dissolved in the water. Potential for mobility in soil very high.	SDS supplier
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1	Soluble in water. The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is possible.	SDS supplier
Tetrapotassium pyrophosphate	7320-34-5	No data available.	SDS supplier
Sodium hydroxide	1310-73-2	Product infiltrating easily in the soil	SDS supplier
Potassium hydroxide	1310-58-3	Potential for mobility in soil very high	SDS supplier
Disodium metasilicate (Na ₂ O ₃ Si)	6834-92-0	Aqueous solution: Potential for mobility in soil very high.	SDS supplier

12.5 - Results of PBT and vPvB assessment

Information concerning the mixture:

This mixture does not contain substances that meet the PBT or vPvB criteria of REACH, annex XIII.

Information relating to the principal substances present in the mixture:

Substance	CAS N°	Statut	References
Hexyl D-Glucoside	54549-24-5	Not classified as PBT or vPvB.	SDS supplier

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Substance	CAS N°	Statut	References
Poly(oxy-1,2-ethanediyl), .alpha.- (2-propylheptyl)-.omega.- hydroxy-	160875-66-1	Not classified as PBT or vPvB.	SDS supplier
Tetrapotassium pyrophosphate	7320-34-5	Not classified as PBT or vPvB. The criteria for the identification of PBT/vPvB properties do not apply to inorganic substances	SDS supplier
Sodium hydroxide	1310-73-2	Not classified as PBT or vPvB. The criteria for the identification of PBT/vPvB properties do not apply to inorganic substances	SDS supplier
Potassium hydroxide	1310-58-3	Not classified as PBT or vPvB. The criteria for the identification of PBT/vPvB properties do not apply to inorganic substances	SDS supplier
Disodium metasilicate (Na ₂ O ₃ Si)	6834-92-0	Not classified as PBT or vPvB. The criteria for the identification of PBT/vPvB properties do not apply to inorganic substances	SDS supplier

12.6 - Other adverse effects

Other effects:

Toxic effect due to the modification of the water pH.

The substance cannot be discharged in a not controlled way: it could be harmful to the aquatic organisms.

Depending on concentration, toxic effects on activated sludge organisms are possible.

13 - DISPOSAL CONSIDERATIONS

13.1 - Waste treatment methods

Waste disposal:

Prohibitions:

Do not discharge in the environment.

Do not evacuate with the household waste.

Destruction/Elimination:

The chemical residues are generally classified like special waste and are regulated according to their use. Recycle or dispose of according to local/national regulations, preferably by an approved collecting and treating centre of chemical waste.

Soiled packing:

Disposal:

Contaminated packing must be treated in the same way that the respective chemical.

National regulations (France):

Waste:

The regulation relating to waste is codified in the "CODE DE L'ENVIRONNEMENT", according to the Ordinance 2010-1579 of December 17, 2010.

Code de l'Environnement – Part I – Book V (Prevention of pollution, the risks and the harmful effects) – Title IV (Waste) – Chapter I (Waste disposal and recovery of materials) – Art. L. 541-1 to L. 541-50.

Waste category:

The waste classification is given in the "CODE DE L'ENVIRONNEMENT", according to the Decree 2007-1467 of October 12, 2007.

Code de l'Environnement – Part II – Book V (Prevention of pollution, the risks and the harmful effects) – Title IV (Waste) – Chapter I (Waste disposal and recovery of materials) – Section I – Sous-Section II – Art. R. 541-7 to R. 541-11 and their annexes.

Waste code:

Waste codes should be assigned by the user according to their use. The waste producer is responsible for the correct specification of the waste. The

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specification of the waste classification should be in arrangement with the authorised waste disposal company.

The waste code(s) given below is/are indicated as a suggestion:

20 01 29*: Detergents containing dangerous substances.

International regulations (EC):

Waste: Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

Waste shipments: Regulation (EC) N° 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste.

Waste code*: Commission Decision 2014/955/EU amending decision 2000/532/EC of 3 May 2000 establishing a list of hazardous waste.

Waste codes should be assigned by the user according to their use. The waste producer is responsible for the correct specification of the waste. The specification of the waste classification should be in arrangement with the authorised waste disposal company.

Waste code: European Waste Classification (Eural Code):

The waste code(s) given below is/are indicated as a suggestion:

20 01 29*: Detergents containing dangerous substances.

Notice

The user should be aware of the possible existence of national, provincial, municipal or local regulations that may affect waste disposal procedures.

14 - TRANSPORT INFORMATION

14.1 - UN number

UN number: 1760.

14.2 - UN proper shipping name

1760 CORROSIVE LIQUID, NOS (CONTENTS SODIUM HYDROXIDE, POTASSIUM HYDROXIDE AND DISODIUM TRIOXOSILICATE IN SOLUTION)

14.3 - Transport hazard class(es)

Classe(s): 8

CC C9

Kemler Number: 80

14.4 - Packing group

Packing group: II

14.5 - Environmental hazards

Marine pollutants: No EmS: F-A ; S-B

14.6 - Special precautions for user

Warning: Corrosive substances.

Complementary data: In case of accident, refer to special instructions of Chapters 5, 6 and 7 of this Safety Data Sheets.

14.7 - Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

The mixture is not concerned.

Note

The regulations cited above are those in force as of the date of this writing. Due to the continuous evolution of regulations governing transport of hazardous materials, users are advised to obtain updated information from their supplier if the SDS in their possession is more than 12 months old.

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15 - REGULATORY INFORMATION

15.1 - Safety, health and environmental regulations/legislation specific for the substance or mixture

International regulations (EC):

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

- Annex XIV (authorization: SVHCA): The mixture does not contain any listed substance.
 - Annex XVII (restriction): The mixture does not contain any listed substance.
- The mixture is not subjected to authorization of marketing or to use restriction.

Regulation (CE) No. 648/2004:

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents.
Detergents Ingredients Database (DID-list) : (ec.europa.eu/environment).

Labelling according to Regulation (EC) No. 648/2004 and 907/2006:

- < 5 % - Non-ionic surfactants.
- < 5 % - Phosphates.
- < 5 % - Polycarboxylates.

Food products:

- Regulation (EC) n° 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.
- Commission Regulation (EC) n° 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food.
- Regulation (EC) n° 1333/2008 of the European Parliament and of the Council of 16 December 2008 on food additives.
- Regulation (EC) n° 1332/2008 of the European Parliament and of the Council of 16 December 2008 on food enzymes and amending Council Directive 83/417/EEC, Council Regulation (EC) No 1493/1999, Directive 2000/13/EC, Council Directive 2001/112/EC and Regulation (EC) No 258/97.
- Regulation (EC) n° 1334/2008 of the European Parliament and of the Council of 16 December 2008 on flavourings and certain food ingredients with flavouring properties for use in and on foods and amending Council Regulation (EEC) No 1601/91, Regulations (EC) No 2232/96 and (EC) No 110/2008 and Directive 2000/13/EC.
- Regulation (EC) n° 1925/2006 of the European Parliament and of the Council of 20 December 2006 on the addition of vitamins and minerals and of certain other substances to foods.

People protection:

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.
Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.
Council Directive 92/85/EC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

National Regulations (French):

Workers protection:

Labour Code:

The regulation relating to workers protection is codified in the “CODE DU TRAVAIL”, according to the Ordinance 2007-239 of March 12, 2007.
Labour code – Legislative Part – Part IV (Health and Safety at Work).

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Special arrangements for certain categories of workers are planned Book I – Title V:
Chapter II, Art. L4152-1 and L4152-2: Pregnant and lactating women;
Chapter III, Art. L4153-1 to 9: Young people at work;
Chapter IV, Art. L4154-1 to 4: Part-time work.
The prevention of chemical risks is provided Book IV – Title VI – Art. L4411 and L4412.
Labour Code – Regulatory Part – Part IV (Health and Safety at Work).
Special arrangements for certain categories of workers are planned Book I – Title V:
Chapter II, Art. D4152-9 to 11: Pregnant and lactating women;
Chapter III, Art. D4153-17 to 18: Young people;
Chapter IV, Art. D4154-1: Part-time work.
Special medical surveillance is provided Book VI – Title II – Chapter IV – Section 2 – Sous-section 3 – Art. R4624-18 and R4624-19.

Social Security Code: The regulation relating to professional diseases is codified in the “CODE DE LA SECURITE SOCIALE”, according to the Ordinance 2005-804 of July 18, 2005.
Social Security Code – Legislative Part – Book IV – Title VI – Art. L 461-1 to 8.
Art. L.461-4: Declaration of employment to "Primary Health Insurance" and to the labor inspectorate.
Social Security Code – Regulatory Part – Book IV – Title VI – Art. R461-3 and D461-1 – Art. Annex II.

Others: Order of 7 February 2007 defining classification criteria, packaging and labelling conditions of dangerous preparations.
Decree 2003-1254 of December, 23th 2003 (JORF of March, 2nd 2004).

Environmental protection:
Listed installations: Not concerned.
Wastes: The regulation relating to waste is codified in the “CODE DE L'ENVIRONNEMENT”: Ordinance 2010-1579 of December 17, 2010.
Waste category: The waste classification is given in the “CODE DE L'ENVIRONNEMENT”: Decree 2007-1467 of October 12, 2007.
The waste code(s) given below is/are indicated as a suggestion:
20 01 29*: Detergents containing dangerous substances.

People protection:
Detergent: The regulation relating to detergent is codified notably in
- the “CODE DE L'ENVIRONNEMENT”: Decree 2009-1083 of September 1st, 2009.
- the “CODE DE L'ENVIRONNEMENT”: Art. R. 211-60 ; Art. R. 211-63 ; Art. R. 211-63.
- Notice regarding the implementation of Regulation (EC) n°648/2004 of March 31th, 2004 on detergents, JORF of May 31th, 2006.

Food contact: The regulations relating to the products used for cleaning materials and articles intended to come into contact with foodstuffs, products and beverages for human and animals is codified in:
- Order of September 8th, 1999 and its modifications.

Customs code*: 34.02.20.20.

National Regulations (Germany):
VwVwS: WGK calculated: 1

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Substance	N° CAS	WGK
Hexyl D-Glucoside	54549-24-5	WGK1
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1	WGK1
Hydroxyde de sodium	1310-73-2	WGK1
Sodium hydroxide	1310-58-3	WGK1
Disodium metasilicate	6834-92-0	WGK1

International Regulations:

Recording numbers:

European Inventory:

All the components of this preparation are registered in EINECS or in ELINCS inventories or in NLP list.

All components of this preparation are registered in REACH or are exempted from registration (polymers).

The polymer is in conformity with the definition of the 7th amendment of the 67/548/EEC Directive and with the definition of the Article 3(5) of Regulation 1907/2006/EC (REACH).

15.2 - Chemical safety assessment

No assessment of the chemical safety was carried out by the supplier for this mixture.

A Chemical Safety Assessment of was made for:

Substance	CAS number
Hexyl D-Glucoside	54549-24-5
Tetrapotassium pyrophosphate	7320-34-5
Potassium hydroxide	1310-58-3
Sodium hydroxide	1310-73-2
Disodium metasilicate (Na ₂ O ₃ Si)	6834-92-0

Note

The legal information cited this section (heading) reflects only the principal regulations specifically applicable to the subject of these SDS. The basic Community texts cited are the subjects of updates and are transcribed in national law.

Users are encouraged to refer to all applicable measures or provisions, international, national and local. Users should be aware of the possible existence of other provisions supplementing these regulations.

16 - OTHER INFORMATION

Update:

This SDS was updated (see date in top of page).

Modifications since the last version are indicated with (*).

Reason of update:

Update of information on the biodegradation of one component.

Abbreviations and acronyms:

ATE:	Acute Toxicity Estimate.
BCF:	BioConcentration Factor.
BOD:	Biological Oxygen Demand.
CAS No.:	Chemical Abstract Service Registry Number
COD:	Chemical oxygen demand.
DMEL:	Derived Minimal Effect Level.
DNEL:	Derived No-Effect Level.
EC ₅₀ :	Effective Concentration for 50% of the test population.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
ELINCS:	European List of Notified Chemical Substances.

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EL ₅₀ :	Effective Level or Effective Loading rate lethal to 50% of the test population. (EL ₅₀ is similar to EC ₅₀ , but tests the water phase from incompletely miscible mixtures).	
IARC:	International Agency for Research on Cancer.	
INERIS:	Institut National de l'Environnement industriel et des RISques.	
INRS:	Institut National de Recherche et de Sécurité.	
IUCLID:	International Uniform Chemical Information Database.	
LC ₅₀ :	Lethal Concentration for 50% of the test population.	
LD ₅₀ :	Lethal Dose level for 50% of the test population.	
LL ₅₀ :	Lethal Level or Lethal Loading rate for 50% of the test population (LL ₅₀ is similar to LC ₅₀ , but tests the water phase from incompletely miscible mixtures).	
Loading Rate:	total amount of test substance added to dilution water to prepare WAFs for ecotoxicity testing.	
LOAEL:	Lowest Observable Adverse Effect Level.	
Log Kow:	octanol-water partition coefficient.	
NLP:	No-Longer Polymers list.	
NOAEL:	No Observable Adverse Effect Level.	
NOEC:	No Observable Effect Concentration.	
NOELR:	No Observable Effect Loading Rate.	
OECD:	Organisation for Economic Co-operation and Development.	
OEL:	Occupational Exposure Limit.	
PBT:	Persistent, Bioaccumulative and Toxic.	
vPvB:	very Persistent very Bioaccumulative.	
PNEC:	Predicted No-Effect Concentration.	
REACH:	Registration, Evaluation, Authorization and restriction of CHemicals.	
STEL:	Short Term Exposure Limit.	
ThOD:	Theoretical Oxygen Demand.	
TIC:	Tremcard international Code.	
TWA:	Time Weighted Average.	
UVCB:	Unknown or Variable Composition or Complex Biological Origin.	
VLE:	Occupational Exposure Limit short terms 15 min. (VLCT). (VLE or VLTC are similar to STEL).	
VME:	Occupational Exposure Limit 8 h. (VLEP). (VME or VLEP are similar to TWA).	
WAFs:	Water Accommodated Fractions: An aqueous fraction containing the dissolved and/or suspended and/or emulsified fraction of a multi-component substances or a mixture.	
WGK:	WasserGefahrungsKlasse (water pollution class, Germany).	

References and sources for data: SDS suppliers.
 Regulation (EC) no 1907/2006 of the European Parliament and of the Council of 18th December 2006, REACH.
 Regulation (EC) no 1272/2008 of the European Parliament and of the Council of 16th December 2008, CLP.
 ECHA – <http://echa.europa.eu>.
 Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA) – <http://www.dguv.de>.
 International Chemical Safety Cards (ICSCs) – <http://www.inchem.org>.
 INRS – <http://www.inrs.fr>.

List of R and H phrases of the substances indicated in sections 2 and 3:

Met. Corr.:	Corrosive to metals.
Acute Tox.:	Acute toxicity.
Skin Cor.:	Skin corrosion.
Skin Irrit.:	Skin irritation.

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 – Annex II modified

Product:	R N°5	Page: 23/23
Date: 17/11/2015	Version: 2.10	Cancel and replaces: 2.00
Eye Dam.:	Eye damage.	
Eye Irrit.:	Eye irritation.	
STOT-SE:	Specific target organ toxicity - single exposure.	
STOT-RE:	Specific target organ toxicity - repeated exposure.	
H290:	May be corrosive to metals.	
H302:	Harmful if swallowed.	
H314:	Causes severe skin burns and eye damage.	
H315:	Causes skin irritation.	
H318:	Causes serious eye damage.	
H319:	Causes serious eye irritation.	
H335:	May cause respiratory irritation.	
C:	Corrosive.	
Xn:	Harmful.	
Xi:	Irritant / Sensitizing.	
R 22:	Harmful if swallowed.	
R 34:	Causes burns.	
R 35:	Causes severe burns.	
R 37:	Irritating to respiratory system.	
R 41:	Risk of serious damage to eyes.	
R 36/37/38:	Irritating to eyes, respiratory system and skin	

List of P phrases indicated in section 2:

P102:	Keep out of reach of children.
P260:	Do not breathe dust/fume/gas/mist/vapours/spray.
P264:	Wash thoroughly after handling.
P280:	Wear protective gloves/protective clothing/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.
P303 + P361 + P353:	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P301 + P330 + P331:	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P304 + P340:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310:	Immediately call a POISON CENTER or doctor/physician.
P363:	Wash contaminated clothing before reuse.
P390:	Absorb spillage to prevent material damage.
P405:	Store locked up.
P501:	Dispose of contents/container to an approved waste disposal plant, in accordance with local/regional/national/international regulation.
Author:	SDS worked out by GREENSOLUTION.PRO, according to the commission regulation (EU) N° 2015/830 of 28 May 2015 amending the guideline of the FDS given in annex II of European Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Advice to users: This SDS supplements the technical notice but does not replace it. The information which it contains is based on the best data available as of the date of issuance, as are references to regulations and laws. It is given in good faith. Users should be aware of potential risks if the product is used for purpose other than those for which it is intended. The user is responsible for observing the regulations governing the usage of such products, and for observing appropriate precautions in usage, handling, and storage. The laws and regulations cited in this document should not be considered an exhaustive listing; they are mentioned to assist users in the proper usage of this product, but it remains the responsibility of users to observe all laws and regulations governing its usage.

End of the document: contains 23 pages.