MATERIAL SAFETY DATA SHEET

according to regulation (EG) Nr. 1906/2006 (REACH), Annex II-Europe

ES 2527 K (sodium laureth sulfate) – item number 60-107

Date: August 7th, 2015

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

1.1 Product identifier

Chemical name	:	Alcohols C12-14, ethoxylated(1-2.5), suphated, sodium salts
EC number	:	500-234-8
CAS number	:	68891-38-3
INCI Name	:	Sodium laureth sulfate
Other means of identification	:	Sodium laureth sulphate, Sodium laury C12-14 ether sulphate

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

Identified uses
Formulation of Detergents/Maintenance Products: Granular Detergent-Compact (large scale)
Formulation of Detergents/Maintenance Products: Granular Detergent-Compact (medium scale)
Formulation of Detergents/Maintenance Products: Granular Detergent -Compact (small scale)
Use of Me-salts in conversion coating – Nickel
Use of Me-salts in conversion coating - Zinc, Chromium, Copper, Manganese
Use of air freshener products
Use of polishes
Use of washing and cleaning products
Use of washing and cleaning products (Reactive)
Use of washing and cleaning products (Sprays)
Use of Façade/surface Cleaning Products
Use of Food beverage and pharmacos products
Use of Laundry products
Use of Laundry products (Reactive)
Use of Laundry products (WDU)
Use of Quality control
Use of Vehicle cleaning Products
Use of Water treatment Products
Laboratory Use
Use of Dishwashing products
Use of Façade/surface Cleaning Products
Use of Floor care products
Use of Food beverage and pharmacos products
Use of General surface cleaning products
Use of Hand Cleaners
Use of Laundry products
Use of Laundry products (Reactive)
Use of Maintenance Products
Use of Medical Devices
Use of Vehicle cleaning Products
Consumer coatings and inks application (Indoor)
Formulation of Organic Solvent Borne Coatings and Inks- Small Scale
Consumer coatings and inks application (Outdoor)
Formulation of Water Borne Coatings and Inks – Large Scale
Formulation of Water Borne Coatings and Inks – Small Scale

Formulation of Liquid Coatings and Inks Industrial coatings and inks application Industrial coatings and inks application equipment cleaning Industrial coatings and inks application film formation Industrial coatings and inks application laboratory use: QC laboratory Industrial coatings and inks application loading of application equipment Industrial coatings and inks application preparation of material for application Industrial coatings and inks application product delivery/storage Industrial coatings and inks application waste management Coatings and inks application (Indoor) application (Indoor) Coatings and inks application (Indoor) equipment cleaning (Indoor) Coatings and inks application (Indoor) film formation (Indoor) Coatings and inks application (Indoor) loading of application equipment (Indoor) Coatings and inks application (Indoor) preparation of material for application (Indoor) Coatings and inks application (Indoor) product delivery/storage (Indoor) Coatings and inks application (Outdoor) application (Outdoor) Coatings and inks application (Outdoor) equipment cleaning (Outdoor) Coatings and inks application (Outdoor) film formation (Outdoor) Coatings and inks application (Outdoor) laboratory use: QC laboratory Coatings and inks application (Outdoor) loading of application equipment (Outdoor) Coatings and inks application (Outdoor) preparation of material for application (Outdoor) Coatings and inks application (Outdoor) product delivery/storage (Outdoor) Coatings and inks application (Outdoor) waste management (Outdoor) Formulation of powder products QC laboratory Formulation of powder products Formulation of Organic Solvent Borne Coatings and Inks- Large Scale Formulation of Fine Fragrances - Cleaning with Water (medium scale) Formulation of Fine Fragrances - Cleaning with Water (small scale)
Formulation of Medium Viscosity Body Care Products (small scale) Formulation of Medium Viscosity Body Care Products (medium scale) Formulation of Non-liquid Creams, high viscosity Products (small scale) Formulation of Non-liquid Creams, high viscosity Products (large scale) Formulation of Non-liquid Creams, high viscosity Products (medium scale) Formulation of body care soap (large scale) Formulation of body care soap (medium scale) Formulation of body care soap (small scale) Formulation of cosmetic products involving cleaning with Organic Solvents (Varnish / Removers, Decorative Cosmetics, Spray, Lacquer, Fine Fragrance, Solar oil, solid products) (large scale) Formulation of cosmetic products involving cleaning with Organic Solvents (Varnish / Removers, Decorative Cosmetics, Spray, Lacquer, Fine Fragrance, Solar oil, solid products) (medium scale) Formulation of cosmetic products involving cleaning with Organic Solvents (Varnish / Removers, Decorative Cosmetics, Spray, Lacquer, Fine Fragrance, Solar oil, solid products) (small scale) Formulation of low viscosiy liquids (Shampoo, hair conditioner, shower gel, foam bath) (large scale) Formulation of body care soap (medium scale) Formulation of low viscosiy liquids (Shampoo, hair conditioner, shower gel, foam bath) (small scale) Wide Dispersive Use in 'Down the Drain' products - hair and skin care products Wide Dispersive Use in 'Down the Drain' products - hair an skin care products Wide Dispersive Use of Aerosol products for hair and skin care (Non Propellants) Wide Dispersive Use of Aerosol products for hair and skin care (Propellants) Applying treatment to seed (on-farm, Indoor) Applying treatment to seed (on-farm, outdoor) Co-formulants used in crop protection products (seed treatments and granules, Indoor). Co-formulants used in crop protection products (seed treatments and granules, Outdoor). Co-formulants used in crop protection products (sprays, Indoor). Co-formulants used in crop protection products (sprays, Outdoor). Manufacture of aqueous polymer dispersions and dispersion powders - Formulation of Preparations

Manufacture of aqueous polymer dispersions and dispersion powders - Use of Intermediates Manufacture of aqueous polymer dispersions and dispersion powders - Use of Monomers Manufacture of aqueous polymer dispersions and dispersion powders - Use of Process Regulators for Polymerisation Manufacture of aqueous polymer dispersions and dispersion powders - Use of Processing Aids Use of volatile substances in Construction Chemicals Service Life of Construction Chemicals (Indoor) Service Life of Construction Chemicals (Outdoor)
Volatile substances for the Formulation of Construction Chemicals Wide dispersive use of volatile substances in Construction Chemicals (outdoor) Wide dispersive use of volatile substances in Construction Chemicals (outdoor) Wide dispersive use of volatile substances in Construction Chemicals (indoor) Wide dispersive use of nonvolatile substances in Construction Chemicals (indoor) Wide dispersive use of nonvolatile substances in Construction Chemicals (outdoor) Wide dispersive use of volatile substances in Construction Chemicals, outdoor Wide dispersive use of volatile substances in Construction Chemicals, outdoor Wide dispersive use of volatile substances in Construction Chemicals, indoor Use of Fertilizers (indoor) Use of Fertilizers, outdoor Manufacturing / Formulation of Fertilizers Manufacturing / Formulation of Fertilizers Manufacturing / Formulation of Fertilizers Use of Fertilizers (Indoor) Use of Fertilizers (Outdoor) Use of Fertilizers (Outdoor) Distribution Forwarding (closed system) Distribution Q Controlling Distribution Repacking Distribution Sampling Distribution Storing Distribution Uploading / unloading Formulating Batch Mixing Formulating Batch Mixing
Formulating Closed System Mixing Formulating Closed System Mixing Formulating physically bonded Batch Mixing Formulating physically bonded Batch Mixing Formulating physically bonded Calendering Formulating physically bonded Closed System Mixing Formulating physically bonded Compressing, Extruding, Tabletting Solvent use, Indoor Solvent use, Outdoor Formulation of Solvent Borne adhesives - Volatiles Formulation of Water Borne adhesives - Volatiles Industrial Use of Solvents in Paper, Board and related Products / Woodworking and joinery / Footwear and Leather, Textile, Others Adhesives Industrial Use of Solvents in Transportation (Automotive/aircraft/rail vehicles) / industrial Building Construction Adhesives Industrial Use of Substances other than Solvents in Paper, Board and related Products / Woodworking and joinery / Footwear and Leather, Textile, Others Adhesives Industrial Use of Substances other than Solvents in Transportation (Automotive/aircraft/rail vehicles) / industrial Building Construction Adhesives Wide dispersive Use of Solvents in Building Construction Adhesives for indoor/outdoor application Wide dispersive Use of Solvents in Building Construction Adhesives for indoor/outdoor application Wide dispersive Use of Solvents in Professional and DIY Adhesives Wide dispersive Use of Solvents in Professional and DIY Adhesives

Wide dispersive Use of Substances other than Solvents in Building Construction Adhesives for indoor /outdoor application
Wide dispersive Use of Substances other than Solvents in Building Construction Adhesives for indoor /outdoor application
Wide dispersive Use of Substances other than Solvents in Professional and DIY Adhesives
Wide dispersive Use of Substances other than Solvents in Professional and DIY Adhesives
Industrial Solvent use
Professional Solvent use indoor
Professional Solvent use, Outdoor
Blending
Blending
Coating
Formulation of preparations
Handling (Non-Reactive Processing Aids)
Handling (Non-Reactive Processing Aids)
Mixing
Spraying (Non-Reactive)
Spraying (Reactive)
Textile Coating (Inclusion in Matrix)
Textile Coating (Non-Reactive Processing Aids)
Textile Coating (Reactive Processing Aids)
Textile application: dipping and pouring (Inclusion in Matrix)
Textile application: dipping and pouring (Non-Reactive Processing Aids)
Textile application: dipping and pouring (Reactive Processing Aids)
Application of non processing aids
Application of processing aids
blending (Bound in Product)
exposure from textile articles (Low Release, Indoor)
extrusion (Inclusion in Matrix)
extrusion (Reactive)
handling (Inclusion in Matrix)
handling (Inclusion in Matrix)
handling (Reactive Processing Aids)
handling (Reactive Processing Aids)
lubrication
Manipulation of substances bound in materials
textile application: calendering
Use for leather finishing (Inclusion in Matrix)
use for leather finishing (Monomers)
Use for leather finishing (No Inclusion in Matrix)
use in wet end (Inclusion in Matrix)
use in wet end (No Inclusion in Matrix)
use in wet end (Reactive)

1.3 Details of the supplier of the safety data sheet

UCY business services & trading GmbH
Street: Am Villepohl 4
Post code / town: DE-53347 Alfter
Phone: +49 228 2428 732
Facsimile: +49 228 2428 731
E-mail: verkauf@ucy-energy.com

1.4 Emergency telephone number
Beratungsstelle bei Vergiftungen, Mainz
+49 6131 1924 0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : UVCB

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315
Eye Dam. 1, H318
Aquatic Chronic 3, H412

Classification according to Directive 67/548/EEC [DSD]

Xi; R41, R38
R52/53

See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
H315 Causes skin irritation.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.
P337+P313 If eye irritation persists: Get medical advice/attention.

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

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : No.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Not available.

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

SECTION 3: Composition/information on ingredients

3.1 Substance : UVCB

Substance	Identifiers	%	Classification 67/548/EEC	Classification Regulation (EC) No. 1272/2008 [CLP/GHS]	Type
Alcohols C12-14, ethoxylated(1-2.5), suphated, sodium salts	REACH #: 01-2119488639-16 EC: 500-234-8 CAS: 68891-38-3	100	Xi; R41, R38 R52/53	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	[*]
water	EC: 231-791-2 CAS: 7732-18-5	72 - 75	Not classified.	Not classified.	[A]
			See section 16 for the full text of the R-phrases declared above	**See Section 16 for the full text of the H statements declared above.**	

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[*] Substance
[A] Constituent
[B] Impurity
[C] Stabilising additive

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

3.2 Mixture : Not applicable.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion	:	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	:	Causes serious eye damage.
Inhalation	:	May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
Skin contact	:	Causes skin irritation.
Ingestion	:	May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

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

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	:	No specific data.

5.3 Advice for firefighters

Special precautions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
6.3 Methods and materials for containment and cleaning up	:	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 15 to 45°C (59 to 113°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations	:	Not available.
Industrial sector specific solutions	:	Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance.

8.1 Control parameters

Occupational exposure limits

Not established exposure limit value.

Recommended monitoring procedures	:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
Alcohols C12-14, ethoxylated(1-2.5), suphated, sodium salts	DNEL	Long term Dermal	2750 mg/ kg bw/day	Workers	-
	DNEL	Long term Inhalation	175 mg/m³	Workers	-

Predicted effect concentrations

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
Alcohols C12-14, ethoxylated(1-2.5), suphated, sodium salts	PNEC	Fresh water	0,24 mg/l	Assessment Factors
	PNEC	Fresh water	0,024 mg/l	Assessment Factors
	PNEC	Fresh water	0,071 mg/l	Assessment Factors
	PNEC	Fresh water sediment	5,45 mg/kg	Equilibrium Partitioning
	PNEC	Fresh water sediment	0,545 mg/kg	Equilibrium Partitioning
	PNEC	Soil	0,946 mg/kg	Equilibrium Partitioning

8.2 Exposure controls

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

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical product, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours (breakthrough time): Wear suitable gloves tested to EN374.
4 - 8 hours (breakthrough time): Wear suitable gloves tested to EN374.
1 - 4 hours (breakthrough time): Wear suitable gloves tested to EN374.
< 1 hour (breakthrough time): Wear suitable gloves tested to EN374. Wear suitable gloves tested to EN374.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Suitable protective footwear.
Respiratory protection	:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Possible: Under normal conditions of storage does not emit hazardous fumes.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance		
Physical state	:	Liquid. [Liquid.]
Colour	:	Colourless.
Odour	:	Odourless. [Slight]
Odour threshold	:	Not available.
pH	:	7 to 11,5 [Conc. (% w/w): 5%]
Melting point/freezing point	:	0°C approx.
Initial boiling point and boiling range	:	>100°C
Flash point	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Upper/lower flammability or explosive limits	:	Not available.
Vapour pressure	:	Not available.
Vapour density	:	Not available.
Density	:	approx. 1,04 g/cm³
Relative density	:	Not available.
Solubility(ies)	:	Easily soluble in the following materials: cold water and methanol.
Solubility in water at room temperature (g/l)	:	Not available.
Partition coefficient: n-octanol/ water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	>50°C
Viscosity	:	Dynamic (room temperature): 100 mPa·sapprox.
Explosive properties	:	Not available.
Oxidising properties	:	Not available.
Additional information	:	Not available.

9.2 Other information

No additional information.

Nota: Integers (i.e. 3 or 7) should be read as decimals (3.0 or 7.0)

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Stable under recommended storage and handling conditions (see Section 7).

10.5 Incompatible materials : Strong oxidiser, copper

10.6 Hazardous decomposition products : sulfur oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Alcohols C12-14, ethoxylated(1-2.5), suphated, sodium salts	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2500 mg/kg	-
	LD50 Oral	Rat - Male, Female	4100 mg/kg	-

Conclusion/Summary : No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	Skin - Erythema/Eschar	Rabbit	3,2 to 4	24 to 72 hours	-
	Skin - Oedema	Rabbit	3,2 to 4	24 to 72 hours	-
	Eyes - Cornea opacity	Rabbit	0,5 to 4	24 to 72 hours	72 hours
	Eyes - Iris lesion	Rabbit	0,4 to 2	24 to 72 hours	72 hours
	Eyes - Oedema of the conjunctivae	Rabbit	0,9 to 3	24 to 72 hours	72 hours
	Eyes - Oedema of the conjunctivae	Rabbit	0,8 to 4	24 to 72 hours	72 hours
	Eyes - Cornea opacity	Rabbit	1,2 to 4	24 to 72 hours	72 hours
	Eyes - Iris lesion	Rabbit	0,8 to 2	24 to 72 hours	72 hours
	Eyes - Redness of the conjunctivae	Rabbit	2,8 to 3	24 to 72 hours	72 hours

Conclusion/Summary

Skin : Skin irritation

Eyes : Risk of serious damage to eyes.

Sensitiser

Product/ingredient name	Route of exposure	Species	Result
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	skin	Guinea pig	Not sensitizing

Conclusion/Summary

Skin : Non-sensitiser to skin.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: S. typhimurium TA 1535, TA 1537,TA 1538, TA 98, TA 100	Negative
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 475 Mammalian Bone Marrow Chromosomal Aberration Test	Experiment: In vivo Subject: Mammalian-Animal	Negative

Conclusion/Summary : No mutagenic effect.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	Negative	Negative	Negative	Rat - Male	Oral: 30 to 300 mg/kg	11 weeks

Conclusion/Summary : Not mutagenic in a standard battery of genetic toxicological tests.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Potential acute health effects

Inhalation : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.

Ingestion : May cause burns to mouth, throat and stomach.

Skin contact : Causes skin irritation.

Eye contact : Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : No specific data.

Ingestion : Adverse symptoms may include the following:
stomach pains

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Eye contact : Adverse symptoms may include the following:
pain

watering
redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Product/ingredient name	Result	Species	Dose	Exposure
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	Sub-chronic NOAEL Oral	Rat - Male, Female	>225 mg/kg	90 days

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	Acute EC50 2,6 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 27 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 7,2 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 7,1 mg/l Fresh water	Fish - Brachydanio rerio	96 hours
	Acute NOEC 0,18 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute NOEC 0,27 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute NOEC 1 mg/l Fresh water	Fish - Pimephales promelas	45 days
	Acute NOEC 1 mg/l Fresh water	Fish - Pimephales promelas	45 days

Conclusion/Summary : No known significant effects or critical hazards.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	EU EEC C.4-D	73 % - Readily - 28 days	-	-

Conclusion/Summary : readily biodegradable

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Alcohols C12-14, ethoxylated (1-2.5), suphated, sodium salts	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
water	-1,38	-	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : No.
P: Not available. B: Not available. T: No.

vPvB : Not available.
vP: Not available. vB: Not available.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
16 03 05*	organic wastes containing dangerous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging	European waste catalogue (EWC)	
Barrel	15 01 10*	packaging containing residues of or contaminated by dangerous substances
Container	15 01 10*	packaging containing residues of or contaminated by dangerous substances

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

International transport regulations

This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

SECTION 15: Regulatory information

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

REGULATION (EC) NO 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) constituting Appendix C to the Convention concerning International Carriage by Rail (COTIF)

International Maritime Dangerous Goods Code (IMDG CODE)

International Air Transport Association - Dangerous Goods Regulation (IATA DGR)

Directive of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste (94/62/EC)

Ordinance of the Minister of Labour and Social Policy of 29 November 2002 concerning maximum permissible concentrations and intensities of agents harmful to health in a work environment (Journal of Laws No 217 item 1833) with subsequent amendments.

Directive of the European Parliament and of the Council of 19 December 2008 on waste and repealing certain Directives (2008/98/EC)

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Seveso II Directive

This product is not controlled under the Seveso II Directive.

15.2 Chemical Safety Assessment : Complete.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DEL = Derived effect levels
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PEC = Predicted effect concentrations
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	Expert judgment Expert judgment Expert judgment

Full text of abbreviated H statements : H315 Causes skin irritation.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] : Aquatic Chronic 3, H412 AQUATIC TOXICITY (CHRONIC) - Category 3
Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2

Full text of abbreviated R phrases : R41- Risk of serious damage to eyes.
R38- Irritating to skin.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] : Xi - Irritant

Date of issue/ Date of revision : 2013-02-22.

Version : 4

Notice to reader

The information contained herein is accurate to the latest knowledge and describes the product from the point of view of help and environmental protection as well as safe handling. The information presented in this SDS refers to the technical product only and will not apply to any processed product. Final determination of the suitability of any materials for the chosen application(s) is the sole responsibility of the user"