SAFETY DATA SHEET
OPTIMUM ULTRA CONCENTRATED FAST ACTING DISINFECTANT

According to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

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

1.1. Product identifier

Product name OPTIMUM ULTRA CONCENTRATED FAST ACTING DISINFECTANT

Product number OPTU2

Synonyms; trade names PART OF THE OPTIMUM ULTRA CONCENTRATE RANGE

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

Identified uses Disinfectant. For professional use only. Disinfectants must be used responsibly in line with manufacturer's instructions.

Uses advised against Not for direct contact with Food or Beverage stuffs. Not for oral consumption.

1.3. Details of the supplier of the safety data sheet

Supplier

Holchem Laboratories Limited
Gateway House, Pilsworth Road,
Pilsworth Industrial Estate,
Bury, Lancashire (UK)
BL9 8RD
+44 (0) 1706 222288
+44 (0) 1706 221550
info@holchem.co.uk

1.4. Emergency telephone number

Emergency telephone Out of Office Hours Emergency Information:-
For accidents and spillages involving this product that pose a threat to the environment, or human health, or require immediate first aid advice call:- +44(0) 7050 265597.
Note:- This number will not accept order queries or calls dealing with equipment breakdowns.
This product is registered with the NPIS. UK Environment Agency 24hour Advisory Service 0800 807060. Irish Environmental Protection Agency 1890 335599 (This is a Lo Call Number)
This product is registered with the Irish National Poison Centre (NPIC at Beaumont Hospital - Dublin). The Poison Centre can be contacted between 8am and 10pm, telephone +00353 1 8092566.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Corr. 1B - H314 Eye Dam. 1 - H318

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

2.2. Label elements

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Pictogram

Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P273 Avoid release to the environment. P280 Wear protective clothing, gloves, eye and face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/ attention. P501 Dispose of contents/ container in accordance with national regulations.
Contains	ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT, ISO TRIDECANOL ALCOHOL ETHOXYLATE, DIDECYL DIMETHYL AMMONIUM CHLORIDE
Detergent labelling	15 - < 30% cationic surfactants, 5 - < 15% EDTA and salts thereof, < 5% amphoteric surfactants, < 5% non-ionic surfactants

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE **10-30%**

CAS number: 68424-85-1 EC number: 270-325-2

M factor (Acute) = 10 M factor (Chronic) = 1

Classification

Met. Corr. 1 - H290
Acute Tox. 4 - H302
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

Classification (67/548/EEC or 1999/45/EC)

Xn;R21/22. C;R34. N;R50.

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ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT **5-10%**

CAS number: 64-02-8 EC number: 200-573-9 REACH registration number: 01-2119486762-27

Classification
Met. Corr. 1 - H290
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Eye Dam. 1 - H318
STOT RE 2 - H373

Classification (67/548/EEC or 1999/45/EC)
Xn;R20,R22. Xi;R41.

ISO TRIDECANOL ALCOHOL ETHOXYLATE **1-5%**

CAS number: 69011-36-5 EC number: 931-138-8 REACH registration number: 02-2119552461-55-0000

Classification
Acute Tox. 4 - H302
Skin Irrit. 2 - H315
Eye Dam. 1 - H318
Aquatic Chronic 3 - H412

Classification (67/548/EEC or 1999/45/EC)
Xi;R41.

DIDECYL DIMETHYL AMMONIUM CHLORIDE **1-5%**

CAS number: 7173-51-5 EC number: 230-525-2

M factor (Acute) = 10

Classification
Met. Corr. 1 - H290
Acute Tox. 4 - H302
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Aquatic Acute 1 - H400

Classification (67/548/EEC or 1999/45/EC)
Xn;R22. C;R34. N;R50.

CITRIC ACID MONOHYDRATE **1-5%**

CAS number: 5949-29-1 EC number: 201-069-1 REACH registration number: 01-2119457026-42-XXXX

Classification
Eye Irrit. 2 - H319

Classification (67/548/EEC or 1999/45/EC)
Xi; R36

SODIUM HYDROXIDE **<1%**

CAS number: 1310-73-2 EC number: 215-185-5 REACH registration number: 01-2119457892-27

Classification
Met. Corr. 1 - H290
Skin Corr. 1A - H314
Eye Dam. 1 - H318

Classification (67/548/EEC or 1999/45/EC)
C;R35

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The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments To the best of our knowledge, all of the substances used in this product are being supported for the relevent application in REACH. The Biocidally Active components of this product are supported in the Biocidal Products Regulation.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information For immediate First Aid advice in the UK, dial 111. When it is safe to do so, remove victim immediately from source of exposure. However, consideration should be given as to whether moving the victim will cause further injury.

Inhalation Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention.

Skin contact Remove contaminated clothing that is not stuck to the skin. Flush area with clean water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

General information Neat product may cause chemical burns and permanent eye damage. Dilute product may cause irritation to the skin and eyes.

Inhalation Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose.

Ingestion Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, chemical burning of mouth, throat and GI tract will occur. If dilute chemical is ingested some soreness of the mouth, throat and GI tract may occur.

Skin contact Causes severe skin burns and eye damage.

Eye contact May result in permanent eye damage.

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

Notes for the doctor Product contains surfactants and EDTA in an aqueous solution. Rinse well with water to neutral pH.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards On heating corrosive fumes may be produced. In contact with some metals (Aluminium, Zinc and their Alloys) Hydrogen Gas is formed, which may form an explosive mixture with air. Note - Comment refers to neat product.

5.3. Advice for firefighters

Protective actions during firefighting Protective clothing and respiratory protection should be worn when tackling fires involving this product. Control run-off water by containing and keeping it out of sewers and watercourses.

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Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Avoid or minimise the creation of any environmental contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Dike far ahead of larger spills for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections See sections 8,12 & 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Refer to section 8. Read and follow manufacturer's recommendations.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep container tightly closed. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Store in a cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) Disinfectant, refer to Product Information Sheet for full details.

Usage description This product is suitable for use in food and beverage processing plants, but it is not designed for direct food contact.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

SODIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³
WEL = Workplace Exposure Limit

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Ingredient comments

Where an exposure level is quoted, a risk assessment should consider if there is a need to monitor the atmosphere of the working environment. Results should be compared against the WEL and/or DNEL information provided. The Long Term WEL refers to total exposure of a worker to a specific substance averaged out over an 8 hour period.
The Short Term WEL refers to a single exposure of a worker to a specific substance over a 15 minute period.
If the Short Term WEL is exceeded and no Long Term Limit is set, further exposure during the working shift is not permitted. Further controls should be implemented to ensure that future exposure to the substance is reduced below the levels set before the activity is repeated/continued. Where no Short Term WEL exists, guidance from the HSE is to use a value of three times the Long Term WEL.
The WEL limits are laid down in the EH40 list as supplied by the HSE. This is taken from the Chemical Agents Directive (98/24/EC). Where a worker is exposed to levels approaching a limit, further exposure control measures should be considered to reduce exposure to the substance. DNEL and/or PNEC information is supplied by manufacturers of substances in accordance with REACH legislation (Regulation (EC) No 1907/2006) , and is used to provide suitable risk reduction measures to limit exposure of the user of the substance to a non hazardous level. If the measured level of exposure by a route divided by the DNEL for the route is greater than 1, then further exposure controls should be implemented as described in section 8.2. Where new information becomes available under REACH, this will be passed on as revisions to the Safety Data Sheet.

ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT (CAS: 64-02-8)

DNEL

Professional - Inhalation; Long term systemic effects: 1.5 mg/m³

PNEC

- Fresh water; 2.86 mg/l
- Marine water; 0.286 mg/l
- Intermittent release; 1.56 mg/l
- Soil; 0.937 mg/kg, mg/kg dwt
- STP; 55.94 mg/kg

CITRIC ACID MONOHYDRATE (CAS: 5949-29-1)

PNEC

- Fresh water; 0.44 mg/l
- Marine water; 0.044 mg/l
- STP; >1000 mg/l

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL

Industry - Inhalation; Long term local effects: 1.0 mg/m³
DNEL data for Professional users is not yet available, but it is assumed to be the same as for Industrial users.
Industry - Dermal; Short term local effects: 2%

PNEC

No information is available for PNEC data for Sodium Hydroxide

8.2. Exposure controls

Protective equipment

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Personal protection	The PPE indicated above is not a COSHH assessment. It represents PPE that should be considered during the manufacture, distribution, use and final disposal stages of this product's life cycle. It is the responsibility of employers to conduct a COSHH/risk assessment to determine appropriate PPE levels. The information given below should be used to support this assessment. Where possible replace manual processes with automated or closed processes to minimise contact with the product.
Eye/face protection	This product is not expected to come into contact with eyes during normal usage. If a risk assessment indicates eye contact is reasonable likely eye protection should be considered Refer to EN Standard 166 to select appropriate level of protection.
Hand protection	Nitrile Rubber of at least 0.4mm coating thickness with a breakthrough time of >240min. Refer to Standard EN 374 and EN 16523
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. Reference to EN 13832 and EN 943 is useful when selecting footwear and clothing.
Hygiene measures	Promptly remove non-impervious clothing that has become contaminated, provided it is not adhered to the skin. Provide eyewash station and safety shower.
Respiratory protection	No specific recommendation made, but respiratory protection must be used if the general level exceeds the Workplace Exposure Limit. In the case of dust or aerosol formation (eg spraying), or vapour from hot vessels, use respiratory protection with an approved filter (P2).
Environmental exposure controls	Do not allow the substance to contaminate surface water/ground water. See points 6, 12 &13. We believe that the disinfectant active component(s) of this formulation represent the greatest environmental risk. Information on these are given in section 12. Users of this product should consult local drainage and permitting authorities to ensure that any restrictions or discharge consents are adhered to.
General Health and Safety Measures.	The above requirements refer to the neat chemical. In-use solutions may have a lower classification, however, a full risk assessment should be carried out before handling any chemical(s). Risk assessments should refer to COSHH and any other relevant legislation or industry specific guidelines governing the use of chemicals.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Blue.
Odour	Surfactant
Odour threshold	Not applicable.
pH	8 - 9 @ 20 Degrees C
Initial boiling point and range	95 - 110 degrees C
Flash point	Not applicable. Contains no Flammable Components
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.

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Vapour density	Not applicable.
Relative density	~ 1.04-1.06 @ 20 Degrees C
Bulk density	Not applicable.
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable. Technically not feasible. Not technically practical for mixtures.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	Not determined.
Explosive properties	Not applicable.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising. Not applicable. Contains no Oxidising Components.

9.2. Other information

Refractive index	Not applicable.
Particle size	Not applicable.
Molecular weight	Not applicable.
Volatility	Not applicable.
Saturation concentration	Not applicable.
Critical temperature	Not applicable.
Volatile organic compound	Not applicable.
Explosive Properties	Not Classified as Explosive
Storage Temperature Range	0 - 40 Degrees C

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Not expected to react when correctly stored and used. Mixing with other chemicals may produce unexpected reactions.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. - See note 10.6.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Refer to section 10.1. Do not mix with Hypochlorite based chemicals, this could result in a dangerous heating of the solution.

10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid	Strong acids. Do not mix with Hypochlorite based chemicals this could result in a hazardous reaction producing heat, CO2 and O2.

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10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. - See section 10.5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 2,734.95

Acute toxicity - dermal

ATE dermal (mg/kg) 6,000.0

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 19.74

Respiratory sensitisation

Respiratory sensitisation No evidence of skin sensitisation for any component of this formulation.

Carcinogenicity

Carcinogenicity The components of this formulation will not be systemically available in the body under normal conditions of handling. As a consequence it is not expected to cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility The components of this formulation will not be systemically available in the body under normal conditions of use and handling. As a consequence it is not expected to be toxic to the reproductive system or developing foetus.

General information See section 4.2.

Inhalation Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose. - See section 4.2.

Ingestion Will cause severe irritation to mouth, throat and GI-Tract.

Skin contact Neat product may cause reddening of skin and with prolonged contact burns. Prolonged or repeated contact of in use solutions with skin may cause redness, itching, irritation and eczema/chapping. Use solutions may cause mild irritation especially to open cuts and abrasions.

Eye contact Risk of serious damage to eyes. May cause permanent eye injury.

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects. Neat product is classified as Toxic to Aquatic Life with Long Lasting Effects. Normal use does not pose a risk.

12.1. Toxicity

Acute toxicity - fish To the best of our current knowledge, the main ecotoxicological effect is due to the Alky Benzyl Dimethyl Ammonium Chloride, for which :-
The EC50/48h value for Daphnia is 0.03mg/l.
The EC50/96h value for Selenastrum capricornutum is 0.06mg/l.
The LC50/96h value for Rainbow Trout is 1.7 mg/l.
Behaviour in sewage processing plants - EC20 / 0.5hr = 10mg/l (Activated Sludge).

12.2. Persistence and degradability

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Persistence and degradability The surfactant(s) used in this preparation complies (comply) with the biodegradability criteria as laid down in the European Detergents Regulation No 648/2004 as amended.

12.3. Bioaccumulative potential

Bioaccumulative potential Not expected to bioaccumulate.

Partition coefficient Not applicable. Technically not feasible. Not technically practical for mixtures.

12.4. Mobility in soil

Mobility The product contains substances which are water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered. Do not mix with other chemicals.

Disposal methods Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1903

UN No. (IMDG) 1903

UN No. (ICAO) 1903

UN No. (ADN) 1903

14.2. UN proper shipping name

Proper shipping name (ADR/RID) DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (CONTAINS ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)

Proper shipping name (IMDG) DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (CONTAINS ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)

Proper shipping name (ICAO) DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (CONTAINS ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)

Proper shipping name (ADN) DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (CONTAINS ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C9

ADR/RID label 8

IMDG class 8

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ICAO class/division	8
ADN class	8

Transport labels

14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

EU legislation	European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures. This replaces Directive 67/548/EEC - Classification, Packaging and Labelling of Dangerous Substances and Regulation (EC) No. 453/2010 relating to the Classification, Packaging and Labelling of Dangerous Preparations. Also considered is the REACH Regulation (EC) No.1907/2006.

15.2. Chemical safety assessment

Pcs Information

No chemical safety assessment has been carried out.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet	(EC) No. 1272/2008 : EU Regulation on Classification, Labelling and Packaging of Substances and Mixtures. NPIS - National Poisons Information Service. vPvB - Very Persistent, Very bioaccumulative. PBT - Persistent, Bioaccumulative & Toxic. REACH - Registration, Evaluation, Authorisation & restriction of CHemicals (Regulation EC 1907/2006). DNEL - Derived No Effect Limit. PNEC - Predicted No Effect Concentration. COSHH - Control of Substances Hazardous to Health. LC50 - Lethal Concentration 50 - The environmental contamination at which 50% mortality is reached over a fixed time scale. LD50 - Lethal Dose 50 - The dose at which 50% of the tested group will die. Industry - Refers in section 8 to application of the substance in an industrial process. Professional - Refers in section 8 to application/use of the preparation/product in a skilled trade premises.
General information	This document is a Safety Data Sheet, NOT a CoSHH assessment. It is the customer's responsibility to conduct a full CoSHH assessment, taking into account the information held within this document along with other local factors considered in a risk assessment. The Risk and Hazard statements listed below are the full text of abbreviations used in this document. They are not the final classification, for this refer to section 2.
Revision comments	Product Launch
Revision date	14/02/2018
SDS number	25283
Hazard statements in full	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. H332 Harmful if inhaled. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.
REACH extended MSDS comments	REACH requires that persons handling chemicals should take the necessary risk management measures, in accordance with assessments from manufacturers and importers of chemical substances. The relevent recommendations must be passed along the supply chain. These assessments are generally reported in Exposure Scenarios. Where Exposure Scenarios have been provided for substances used in this product, the relevent information is incorporated into the safety data sheet.
END OF SAFETY DATA SHEET	