

Appendix D - Figure 4

**CHLORFOAM PLUS**

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 CHLORFOAM PLUS
Product number HLC61

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

Identified uses Detergent. For professional use only.
Uses advised against Not for direct contact with Food or Beverage stuffs. Not for oral consumption. Must not be used where acid based chemicals are present.

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.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification****Physical hazards**

Met. Corr. 1 - H290

Health hazards

Skin Corr. 1A - H314 Eye Dam. 1 - H318

Environmental hazards

Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412

2.2. Label elements**Pictogram**

CHLORFOAM PLUS**Signal word**

Danger

Hazard statements

H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H400 Very toxic to aquatic life.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P234 Keep only in original container.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 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.
 P313 Get medical advice/attention.
 P501 Dispose of contents/container in accordance with national regulations.

Supplemental label information

EUH031 Contact with acids liberates toxic gas.

Contains

SODIUM HYDROXIDE, SODIUM HYPOCHLORITE SOLUTION

Detergent labelling

< 5% anionic surfactants, < 5% chlorine-based bleaching agents, < 5% non-ionic surfactants, < 5% polycarboxylates

Supplementary precautionary statements

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P404 Store in a closed container.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. Note:- H290 May be Corrosive to Metals
 Classification relates to Soft Metals such as Aluminium and Copper, when used correctly this product is not expected to be corrosive to 304 and 316 Stainless Steel.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

SODIUM HYDROXIDE CAS number: 1310-73-2 EC number: 215-185-5 REACH registration number: 01-2119457892-27	5-10%
Classification Met. Corr. 1 - H290 Skin Corr. 1A - H314	Classification (67/548/EEC or 1999/45/EC) C;R35
SODIUM HYPOCHLORITE SOLUTION CAS number: 7681-52-9 EC number: 231-668-3 REACH registration number: 01-2119488154-34 M factor (Acute) = 10	1-5%
Classification Met. Corr. 1 - H290 Skin Corr. 1B - H314 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	Classification (67/548/EEC or 1999/45/EC) C;R34 R31 N;R50

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SODIUM ARYL SULPHONATE CAS number: 1300-72-7 EC number: 215-090-9		1-5%
Classification Eye Irrit. 2 - H319	Classification (67/548/EEC or 1999/45/EC) Xi;R36/37/38.	
ALKYL DIMETHYL AMINE OXIDE CAS number: 308062-28-4 EC number: 931-292-6 REACH registration number: 01-2119490061-47 M factor (Acute) = 1		1-5%
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	Classification (67/548/EEC or 1999/45/EC) Xn; R22. Xi; R38, R41. N; R50/53	

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 relevant application in REACH., Note:- Sodium Hypochlorite content expressed as % Available Chlorine in Solution., Note:- H290 "May be Corrosive to Metals" refers to the neat product.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

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.

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

Inhalation of neat product is unlikely. However, inhalation of mists or vapours of diluted product may result in soreness, irritation or burns to the mouth, nose and respiratory tract. If mixed with acid products Chlorine Gas may be evolved, this can result in irritation to eyes and difficulty in breathing. If inhaled this may result in irritation to the mouth nose and respiratory tract.

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, soreness of mouth, throat and GI tract may occur together with redness and blistering.

Skin contact

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May cause serious chemical burns to the skin.

Eye contact

May result in permanent eye damage.

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

Notes for the doctor

Contains Sodium Hydroxide, Sodium Hypochlorite, Surfactants and Phosphates in an aqueous solution. Rinse well with water to neutral pH. If mixed with acidic material will produce Chlorine Gas, check for respiratory disorders.

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

This product is non combustible, on heating corrosive vapours may be formed.

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. Contact with acids will generate toxic chlorine gas.

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.

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 suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Read and follow manufacturer's recommendations.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

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Store in tightly-closed, original container in a well-ventilated place. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Store between -5 and +30 Degrees C. Store away from the following materials: Acids.

7.3. Specific end use(s)

Specific end use(s)

Detergent, refer to Product Information Sheet for full details.

Usage description

This product is suitable for cleaning food process plants, it is not suitable for direct food contact.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

SODIUM HYDROXIDE

Long-term exposure limit (8-hour TWA): WEL

Short-term exposure limit (15-minute): WEL 2 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments

As a requirement of REACH we have considered all of the components of this formulation.

We believe that Sodium Hydroxide (NaOH) is the most hazardous component of this formulation. Sodium Hydroxide is not expected to be systemically available to the body under normal handling and use conditions, therefore systemic effects of Sodium Hydroxide after Dermal or Inhalation Exposure are not expected to occur. Based on data from our raw material suppliers, we understand that if the risk management measures outlined in section 8.2 are followed, the inhalation exposure is below the DNEL of 1mg/m³.

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.

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SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL	Industry - Inhalation; Long term local effects: 1.0 mg/m ³ 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

SODIUM HYPOCHLORITE SOLUTION (CAS: 7681-52-9)

DNEL	Industry - Inhalation; Long term local effects: 1.55 mg/m ³ Industry - Inhalation; Long term systemic effects: 1.55 mg/m ³ Industry - Inhalation; Short term local effects: 3.1 mg/m ³ Industry - Inhalation; Short term systemic effects: 3.1 mg/m ³ Industry - Dermal; Long term local effects: 0.5% wt/wt
PNEC	- Sediment (Freshwater); 0.21 ug/l - Sediment; 0.042 ug/l - Intermittent release; 0.26 ug/l - Fresh water; 30 ug/l

SODIUM ARYL SULPHONATE (CAS: 1300-72-7)

DNEL	Professional - Dermal; Long term systemic effects: 7.6 mg/kg/day Professional - Inhalation; Long term systemic effects: 53.6 mg/m ³ 8h
PNEC	- Fresh water; 1000 mg/l - Intermittent release; 2.3 mg/l - STP; 100 mg/l

ALKYL DIMETHYL AMINE OXIDE (CAS: 308062-28-4)

DNEL	Professional - Dermal; Long term systemic effects: 11 mg/kg/day Professional - Inhalation; Long term systemic effects: 15.5 mg/m ³ 8h Professional - Dermal; Long term local effects: 0.27 % General population - Dermal; Long term systemic effects: 5.5 mg/kg/day General population - Inhalation; Long term systemic effects: 3.8 mg/m ³ General population - Oral; Long term systemic effects: 0.44 mg/kg/day
PNEC	- Fresh water; 0.0335 mg/l - Marine water; 0.00335 mg/l - Intermittent release; 0.0335 mg/l - Sediment (Freshwater); 1.02 mg/kg - Sediment (Marinewater); 24 mg/kg - Soil; 1.02 mg/kg - STP; 24 mg/kg

SODIUM ALKYL ETHER SULPHATE (CAS: 68891-38-3)

DNEL	Professional - Dermal; Long term systemic effects: 2750 mg/kg/day Professional - Inhalation; Long term systemic effects: 175 mg/m ³ General population - Oral; Long term systemic effects: 15 mg/kg/day General population - Dermal; Long term systemic effects: 1650 mg/kg/day General population - Inhalation; Long term systemic effects: 52 mg/m ³
PNEC	- Fresh water; 0.24 mg/l - Marine water; 0.024 mg/l - Intermittent release; 0.071 mg/l - Sediment (Freshwater); 5.45 mg/kg - Sediment (Marinewater); 0.545 mg/kg - Soil; 0.946 mg/kg - STP; 10 g/l

8.2. Exposure controls

CHLORFOAM PLUS

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

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

The following protection should be worn: Full face visor or shield. Refer to EN Standard 166 to select appropriate level of protection.

Hand protection

Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC).
Refer to Standard EN 374.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. 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. Contaminated clothing and shoes must be discarded. 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 Type B(P3).

Environmental exposure controls

Do not allow the substance to contaminate surface water/ground water. See points 6, 12 & 13.

Discharge of solutions into effluent systems (including municipal drains) or to surface water are expected to cause significant pH changes. Discharge of solutions should be carried out such that pH changes are minimised. Where necessary pH buffering measures should be adopted.

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. The above requirements refer to the neat chemical. A 5% solution of this product would not be classified, although mixing with acid would still produce Chlorine Gas. Although not classified, we would recommend eye protection if there is a risk of splashing, also use of gloves.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Clear liquid.

Colour

Pale Yellow

Odour

CHLORFOAM PLUS

Bleach

Odour threshold

Not applicable.

pH

pH (concentrated solution): >13 pH (diluted solution): 11.5 - 12.5 @ 1%

Melting point

<0 Degrees C

Initial boiling point and range

Not applicable.

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.

Vapour density

Not applicable.

Relative density

1.19 @ 20 Degrees C

Bulk density

Not applicable.

Solubility(ies)

Soluble in water.

Partition coefficient

Technically not feasible.

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. Contains Sodium Hypochlorite. This has oxidising properties.

9.2. Other information

Refractive index

Not applicable.

Particle size

CHLORFOAM PLUS

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

-5 to +30 Degrees C

SECTION 10: Stability and reactivity

10.1. 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. Decomposes over time to produce Oxygen and Sodium Chloride. - See note 10.6.

10.3. Possibility of hazardous reactions

Refer to section 10.1.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time. Generates toxic gas in contact with acid.

10.5. Incompatible materials

Materials to avoid

Reaction with acids will produce toxic Chlorine Gas. In contact with cellulose based material such as wood or paper a potential for ignition and slow burning exists.

Reaction with Aluminium, Zinc, Tin, Copper or their alloys produces flammable Hydrogen Gas. - Note: reaction relates to neat product.

10.6. Hazardous decomposition products

Will evolve Hydrogen Gas when in contact with soft metals such as Aluminium. Will evolve Chlorine Gas in contact with Acids. Natural decay (especially in warm conditions or in direct sunlight) will evolve Oxygen Gas.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)

30,400.0

Skin sensitisation

There is no evidence of skin sensitisation in humans.

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.

CHLORFOAM PLUS

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. Mixing with acid will evolve toxic Chlorine Gas. - See section 4.2.

Ingestion

May cause chemical burns in mouth, oesophagus and stomach.

Skin contact

Causes severe burns.

Eye contact

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

SECTION 12: Ecological Information

Ecotoxicity

This product is classified as very toxic to aquatic life, this refers to the neat product. Normal use is not expected to pose a risk.

12.1. Toxicity

Normal use is not expected to pose an ecological risk.

Acute toxicity - fish

To the best of our current knowledge, the main ecotoxicological effect is due to the Sodium Hypochlorite for which:-

The Fresh Water LC50 (96hr) is 0.06mg/l.

The Marine Water LC50 (96hr) is 0.032 mg/l.

The Fresh Water EC50 (48hr) value for *Daphnia magna* is 0.141mg/l.

The Marine Water EC50(48hr) value for *Crassostrea virginica* is 0.026mg/l.

The NOEC (Algae 7 day) Fresh Water 0.0021.

Note in addition to Hypochlorite, high pH has the potential to cause harm to the environment. Effluent pH values greater than 10.5 in fresh water may be fatal to fish and other aquatic organisms. Damage to aquatic plants is also possible.

Normal use is unlikely to pose a risk. - See note 12.

12.2. Persistence and degradability

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

Not expected to bioaccumulate.

Partition coefficient

Technically not feasible.

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

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

12.6. Other adverse effects

Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

CHLORFOAM PLUS**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

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

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

UN No. (ADR/RID)	1719
UN No. (IMDG)	1719
UN No. (ICAO)	1719

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE SODIUM HYPOCHLORITE SOLUTION, 15% Cl)
Proper shipping name (IMDG)	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE SODIUM HYPOCHLORITE SOLUTION, 15% Cl)
Proper shipping name (ICAO)	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE SODIUM HYPOCHLORITE SOLUTION, 15% Cl)
Proper shipping name (ADN)	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE SODIUM HYPOCHLORITE SOLUTION, 15% Cl)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID subsidiary risk	
ADR/RID label	8
IMDG class	8
IMDG subsidiary risk	
ICAO class/division	8
ICAO subsidiary risk	
Transport labels	

**14.4. Packing group**

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



Yes.

14.6. Special precautions for user

EmS	F-A, S-B
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CHLORFOAM PLUS

Emergency Action Code 2R

Hazard Identification Number 80
(ADR/RID)

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 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

No chemical safety assessment has been carried out.

SECTION 16: Other information

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.

NOEC - No Observed Effect Concentration.

NOAEL - No Observable Adverse Effect Level.

LC50 - Lethal Concentration 50 - The environmental contamination at which 50% mortality is reached over a fixed time scale.

EC50 - Effective Concentration 50 - Concentration of a substance in water at which 50% of the maximum biological response is reached.

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

Review in line with CLP Regulation.

Revision date 30/03/2015

Risk phrases in full

CHLORFOAM PLUS

R31 Contact with acids liberates toxic gas.
R34 Causes burns.
R35 Causes severe burns.
R36/37/38 Irritating to eyes, respiratory system and skin.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.

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.
H400 Very toxic to aquatic life.
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 relevant 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 relevant information is incorporated into the safety data sheet.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.