Safety Data Sheet
According to Regulation (EC) No 453/2010

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

1.1 Product identifier
Trade name: Clements Extra Emulsifier
Code(s): A593, A594, E426, E497

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses:
For professional and industrial use only.
Laundry Detergent. Manual and Automatic Process
Uses advised against:
Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet

William Clements (Chemicals) Ltd
The Old Transport Museum
Witham Street
Belfast
BT4 1HP
United Kingdom
Tel: +44 (0) 28 9073 8395
Fax: +44 (0) 28 9045 0532
Email: info@clementschemicals.com

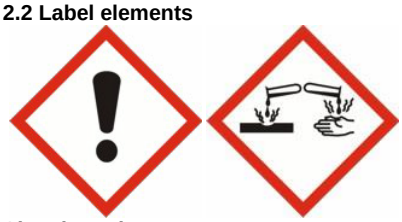
1.4 Emergency telephone number
+44 (0) 28 9073 8395 8.00am – 5.00pm Monday - Friday

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
The product has been classified and labelled in accordance with Regulation (EC) No 1272/2008.

Acute Tox. 4: H302
Eye Dam. 1: H318

2.2 Label elements



Signal word: Danger

Hazard statements:
H302: Harmful if swallowed.
H318: Causes serious eye damage.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements:
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Remove/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.
P337+313: If eye irritation persists: Get medical advice/attention.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P273: Avoid release to the environment.
P391: Collect spillage.
P501: Dispose of contents/container to hazardous or special waste collection point.

2.3 Other hazards
No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC Number	CAS Number	Reach Number	Classification	Weight percent
C12-C15 Alcohol Ethoxylate With 7MEO		**68131-39-5**		**Acute Tox. 4 H302 Eye Dam. 1 H318**	**40-60**

SECTION 4: First aid measures

4.1 Description of first aid measures
Inhalation
IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Transfer to hospital for specialist examination.

Ingestion
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell. Transfer to hospital for specialist examination.

Self-protection of first aider
Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact:
Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure.

Eye contact:
There may be irritation and redness. The eyes may water profusely. There may be severe pain. Corneal burns may occur. May cause permanent damage.

Ingestion:
There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting. There may be loss of consciousness.

Inhalation:
Exposure may cause coughing or wheezing. There may be congestion of the lungs causing severe shortness of breath. There may be loss of consciousness.

4.3 Indication of any immediate medical attention and special treatment needed
No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture
In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

5.3 Advice for firefighters
As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid contact with eyes. Avoid inhalation of dust. Wear suitable gloves and eye/face protection.

6.2 Environmental precautions
Products ending up down the drain after use. Prevent soil and water pollution. Prevent spreading in sewers. Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3 Methods and material for containment and cleaning up
Absorb onto dry sand or similar inert material.

6.4 Reference to other sections
For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Measures to prevent fire and explosions:
No special precautions required.

Measures required to protect the environment:
For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:
Avoid direct contact with the substance. Avoid contact with eyes. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Keep only in original container. Store in a closed container. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)
No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Workplace exposure limits

C12-C15 Alcohol Ethoxylate With 7MEO				
DNEL/DMEL and PNEC values Human exposure	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
DNEL oral exposure - Consumer (mg/kg bw)	No data available	No data available	No data available	No data available
DNEL dermal exposure - Worker	No data available	No data available	No data available	No data available
DNEL dermal exposure - Consumer	No data available	No data available	No data available	No data available
DNEL inhalatory exposure - Worker (mg/m3)	No data available	No data available	No data available	No data available
DNEL inhalatory exposure - Consumer (mg/m3)	No data available	No data available	No data available	No data available
Environmental exposure -	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	(mg/l) Intermittent (mg/l)	Sewage treatment plant (mg/l)
PNEC	No data available	No data available	No data available	No data available
Environmental exposure	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m3)
PNEC	No data available	No data available	No data available	No data available

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2. If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the product:
Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls:
Dust removal.

Appropriate organisational controls:
Avoid direct contact and/or splashes where possible.

Personal protective equipment Eye / face protection:
Wear eye/face protection.

Hand protection:
Chemical-resistant protective gloves (EN 374).
Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier.

Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact and with undiluted product:
Material: butyl rubber
Penetration time: >= 480 min
Material thickness: >= 0.7 mm

Suggested gloves for protection against splashes and with diluted product:
Material: nitrile rubber
Penetration time: >= 30 min
Material thickness: >= 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen

Body protection:
Not applicable

Environmental exposure controls:
Not Available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Information in this section refers to the product, unless it is specifically stated that substance data is listed

Physical State: Liquid
Colour: Clear
Odour: None
Odour threshold: Not applicable
pH: 7 @ 1% dilution
Melting point/freezing point (°C): 20
Initial boiling point and boiling range (°C): 260
Flash point (°C): 186
Sustained combustion: Not determined
Evaporation rate: Not determined
Flammability (solid, gas): Not determined
Upper/lower flammability limit (%): Not determined
Vapour pressure: Not determined
Vapour density: Not determined
Relative density: 0.98
Solubility in / Miscibility with Water: Fully soluble
Autoignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: N/A
Explosive properties: Not explosive
Oxidising properties: Not oxidising

9.2 Other information
Surface tension (N/m): Not determined
Corrosion to metals: Not Corrosive

Substance data, dissociation constant, if available:

SECTION 10: Stability and reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid
None known under normal storage and use conditions.

10.5 Incompatible materials
Reacts with acids.

10.6 Hazardous decomposition products
None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

C12-C15 Alcohol Ethoxylate With 7MEO					
	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
Acute oral toxicity	LD 50	> 300 - 2000	Rat	OECD 423 (EU B.1 tris)	-
Acute dermal toxicity	LD 50	> 2000	Rabbit	Method not given	-
Acute inhalative toxicity		No data available			
Sub-acute or sub-chronic oral toxicity		No data available			
Sub-chronic dermal toxicity		No data available			
Sub-chronic inhalation toxicity		No data available			
Chronic toxicity oral	NOAEL	50	Rat	Method not given	24 months
Carcinogenicity	No evidence				
Mutagenicity	No evidence				
		Result	Species	Method	Exposure time (h)
Skin irritation and corrosivity		Not irritant	Rabbit	OECD 404 (EU B.4)	
Eye irritation and corrosivity		Severe damage	Rabbit	Method not given	
Respiratory tract irritation and corrosivity		No data available			
Sensitisation by skin contact		Not sensitising	Guinea pig	Method not given	
Sensitisation by inhalation		No data available			
Sensitisation by skin contact		Not sensitising	Guinea pig	Method not given	

Symptoms / routes of exposure

Skin contact:
Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure.

Eye contact:
There may be irritation and redness. The eyes may water profusely. There may be severe pain. Corneal burns may occur. May cause permanent damage.

Ingestion:
There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting. There may be loss of consciousness.

Inhalation:
Exposure may cause coughing or wheezing. There may be congestion of the lungs causing severe shortness of breath. There may be loss of consciousness.

Aspiration hazard
Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms
Effects and symptoms related to the product, if any, are listed in subsection 4.2.

SECTION 12: Ecological information

12.1 Toxicity

No test data is available on the mixture. Substance data, where relevant and available, are listed below

C12-C15 Alcohol Ethoxylate With 7MEO					
	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
Aquatic short-term toxicity - fish	LC 50	1 - 10	Cyprinus carpio	OECD 203	96
Aquatic short-term toxicity - crustacea	EC 50	1 - 10	Daphnia magna Straus	OECD 202, static	48
Aquatic short-term toxicity - marine species		1 - 10	No data available		
Impact on sewage plants - toxicity to bacteria	EC 10	> 10000	Activated sludge	DIN 38412 / Part 8	17
Aquatic long-term toxicity - fish		No data available			
Aquatic long-term toxicity - crustacea		No data available			
Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms		No data available			
Terrestrial toxicity - soil invertebrates, including earthworms	NOEC	220 (mg/kg dw soil)	Eisenia fetida		
Terrestrial toxicity - plants,	NOEC	10 (mg/kg dw soil)	Lepidium sativum	OECD 208	

if available:					

12.2 Persistence and degradability

Abiotic degradation
Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

C12-C15 Alcohol Ethoxylate With 7MEO				
Inoculum	Analytical method	DT 50	Method	Evaluation
	CO 2 production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable

Biodegradation

Ready biodegradability - aerobic conditions Ingredient(s)
The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3 Bioaccumulative potential

C12-C15 Alcohol Ethoxylate With 7MEO					
	Value	Species	Method	Evaluation	Remark
Partition coefficient n-octanol/water (log Kow)	No data available	N/A			
Bioconcentration factor (BCF)	No data available				

12.4 Mobility in soil

C12-C15 Alcohol Ethoxylate With 7MEO					
	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
Partition coefficient n-octanol/water (log Kow)	No data available				Immobile in soil or sediment

12.5 Results of PBT and vPvB assessment
Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Other adverse effects
No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods Waste from residues / unused products:
Disposal must be done according to official regulations.

Empty packaging Recommendation:
The waste codes/waste designations below are in accordance with EWC. Waste must be delivered to an approved waste disposal company. The waste is to be kept separate from other types of waste until its disposal. Do not throw waste product into the sewer. Where possible recycling is preferred to disposal or incineration. For handling waste, see measures described in section 7. Empty, uncleaned packaging need the same disposal considerations as filled packaging.
Suitable cleaning agents:
Water, if necessary with cleaning agent.

EURAL Waste code product
20 01 29* - detergents containing dangerous substances
15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

ADR, RID, ADN, IMO/IMDG, ICAO/IATA
14.1 UN number: N/A

14.2 UN proper shipping name: N/A

14.3 Transport hazard class(es): N/A

14.4 Packing group: N/A

14.5 Environmental hazards:
Environmentally hazardous: No
Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:
ADR
Classification code:
Tunnel restriction code:
Hazard identification number:

IMO/IMDG
EmS:

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information

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

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

Ingredients according to EC Detergents Regulation 648/2004
40-60% Non-ionic surfactants

CESIO recommendations
The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

Reason for revision:
Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006

Classification procedure
The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Full text of the H and EUH phrases mentioned in section 3:
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H412: Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:
AISE-The international lAssociation for Soaps, Detergents and Maintenance Products
DNEL-Derived No Effect Limit
EUH-CLP Specific hazard statement
PBT-Persistent, Bioaccumulative and Toxic
PNEC-Predicted No Effect Concentration
REACH number-REACH registration number, without supplier specific part
vPvB-very Persistentand very Bioaccumulative
ATE-Acute Toxicity Estimate