SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	STEOL CS-230 HA
UFI:	54JP-TEPV-GY0J-EN0R, (Only for EU)
Synonyms	None.
Product code	7502EU
Issue date	16-November-2017
Version number	03
Revision date	15-March-2023
Supersedes date	28-April-2022

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

Identified uses	Industrial use Anionic surfactant Mixture for further formulation
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

	Stepan UK Limited
Address	Bridge Str., Stalybridge Cheshire, SK15 1PH United Kingdom
Telephone	+44(0) 161 338 9000
Fax	+44(0) 161 303 2991
E-mail	sds.contact@stepan.com
Contact person	See email address

1.4. Emergency telephone number

General in EU	112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Guy's Hospital Poisons Unit	(00 44)(1 71) 6 35 91 91

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards		
Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Environmental hazards		
Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

UFI:	54JP-TEPV-GY0J-EN0R, (Only for EU)
Contains:	Alcohols, C12-14, ethoxylated, sulfates, sodium salts
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

P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE/doctor.

Storage

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

2.3. Other hazards This mixture does not contain substances that are assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.
The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Mixture

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Alcohols, C12-14, ethoxylated, sulfates, sodium salts	20 - < 30	68891-38-3 500-234-8	-	-	
Classification: Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 3;H412					
Specific Concentration Limits: Eye Dam. 1;H318: C >= 10 %, Eye Irrit. 2;H319: 5 % <= C < 10 %					
Sodium hydroxide	< 0.15	1310-73-2 215-185-5	-	011-002-00-6	#
Classification: Met. Corr. 1;H290, Skin Corr. 1A;H314, Eye Dam. 1;H318					

Composition comments The full text for all H-statements is displayed in section 16.
See special hints in section 15.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media Do not use water jet.

5.2. Special hazards arising from the substance or mixture In the event of fire the following can be released: Sulphur Oxides (SOx). Carbon oxides (COx)

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear appropriate personal protective equipment.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Provide adequate ventilation. Do not get this material in contact with eyes. Avoid contact with eyes, skin and clothing. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Store in tightly closed original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	STEL	2 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General Population

Components	Value	Assessment factor	Notes
Alcohols, C12-14, ethoxylated, sulfates, sodium salts (CAS 68891-38-3)			
Long-term, Local, Dermal	79 µg/cm2		
Long-term, Systemic, Dermal	1650 mg/kg bw/day	20	Repeated dose toxicity
Long-term, Systemic, Inhalation	52 mg/m3	5	Repeated dose toxicity
Long-term, Systemic, Oral	15 mg/kg bw/day	20	Repeated dose toxicity
Sodium hydroxide (CAS 1310-73-2)			
Short-term, Systemic, Inhalation	1 mg/m3	1	respiratory tract irritation

Workers

Components	Value	Assessment factor	Notes
Alcohols, C12-14, ethoxylated, sulfates, sodium salts (CAS 68891-38-3)			
Long-term, Local, Dermal	132 µg/cm2		
Long-term, Systemic, Dermal	2750 mg/kg bw/day	12	Repeated dose toxicity
Long-term, Systemic, Inhalation	175 mg/m3	3	Repeated dose toxicity
Sodium hydroxide (CAS 1310-73-2)			
Short-term, Systemic, Inhalation	1 mg/m3	1	respiratory tract irritation

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Alcohols, C12-14, ethoxylated, sulfates, sodium salts (CAS 68891-38-3)			
Freshwater	0.24 mg/l	5	
Intermittent releases	0.071 mg/l		
Marine water	0.024 mg/l	50	
Sediment (freshwater)	0.917 mg/kg		
Sediment (marine water)	0.092 mg/kg		
Soil	7.5 mg/kg	100	
STP	10 g/l	1	

8.2. Exposure controls

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

- Hand protection: Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. PVC gloves are recommended.

- Other: Wear appropriate chemical resistant clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls: Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid.

Form: Liquid.

Colour: Colourless to light yellow.

Odour: Characteristic.

Odour threshold: Not available.

pH: 10.5 - 11.5 @ 100 g/l (20°C)

Melting point/freezing point: < 5 °C (< 41 °F)

Initial boiling point and boiling range: > 100 °C (> 212 °F)

Flash point: Not applicable

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%): Not available.

Explosive limit – upper (%): Not available.

Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.03 @ 20 °C
Solubility(ies)	
Solubility (water)	Soluble
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	
Kinematic viscosity	97 mm2/s @ 20°C

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	To avoid thermal decomposition, do not overheat. Contact with incompatible materials.
10.5. Incompatible materials	Avoid contact with acids and oxidising substances. Alkalis.
10.6. Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Sulphur Oxides (SOx). Possible decomposition products in case of hydrolysis are: NaHSO4

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
Information on likely routes of exposure	
Inhalation	No adverse effects due to inhalation are expected.
Eye contact	Causes serious eye damage.
Skin contact	Causes skin irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Product	Species	Test Results
STEOL CS-230 HA		
Acute		
Dermal		
	Rat	> 5000 mg/kg (estimated)
Oral		
LD50	Rat	> 5000 mg/kg (estimated)

Components	Species	Test Results
Alcohols, C12-14, ethoxylated, sulfates, sodium salts (CAS 68891-38-3)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg (OECD 402)
Oral		
LD50	Rat	2870 mg/kg (OECD 401)
Subchronic		
Oral		
NOAEL	Rat	> 225 mg/kg bw/day, 90 days (OECD 408)

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory sensitisation	Based on available data, the classification criteria are not met.
Skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Mixture versus substance information	No information available.

SECTION 12: Ecological information

12.1. Toxicity Harmful to aquatic life with long lasting effects.

Product		Species	Test Results
STEOL CS-230 HA			
Aquatic			
Acute			
Algae	EC50	Algae	> 92.3 - < 138.5 mg/l, 72 hours (estimated)
Crustacea	EC50	Daphnia	> 24.6 - < 37 mg/l, 48 hours (estimated)
Fish	LC50	Fish	> 23.6 - < 35.5 mg/l, 96 hours (estimated)
Chronic			
Algae	NOEC	Algae	> 3.16 - < 4.75 mg/l, 72 hours (estimated)
Crustacea	NOEC	Daphnia	> 0.9 - < 1.35 mg/l, 21 days (estimated)
Fish	NOEC	Fish	> 0.46 - < 0.7 mg/l, 28 days (estimated)

Components		Species	Test Results
Alcohols, C12-14, ethoxylated, sulfates, sodium salts (CAS 68891-38-3)			
Aquatic			
Acute			
Algae	EC50	Algae	27.7 mg/l, 72 hours (OECD 201)
Crustacea	EC50	Daphnia magna	7.4 mg/l, 48 hours (OECD 202)
Fish	LC50	Danio rerio	7.1 mg/l, 96 hours (OECD 203)
Chronic			
Algae	NOEC	Algae	0.95 mg/l, 72 h
Crustacea	NOEC	Daphnia magna	0.27 mg/l, 21 days (OECD 211)
Fish	NOEC	Oncorhynchus mykiss	0.14 mg/l, 28 days (OECD 215)
Sodium hydroxide (CAS 1310-73-2)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia	40.4 mg/l, 48 hours
Fish	LC50	Fish	> 35 - < 189 mg/l, 96 hours

12.2. Persistence and degradability Readily biodegradable.

Biodegradability

Percent Degradation (Aerobic Biodegradation)

Alcohols, C12-14, ethoxylated, sulfates, sodium salts	100 % (EU Method C.4-A) Test Duration: 28 days >= 77 % (OECD 301 D) Test Duration: 28 days

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow)

Alcohols, C12-14, ethoxylated, sulfates, sodium salts	0.3 @ 23°C (OECD 123)

12.4. Mobility in soil No data available.

Adsorption

Soil/Sediment Sorption - Log Koc

Alcohols, C12-14, ethoxylated, sulfates, sodium salts	0.34

12.5. Results of PBT and vPvB assessment This mixture does not contain substances that are assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	Not available.
14.2. UN proper shipping name	Not available.
14.3. Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
Hazard No. (ADR)	Not available.
Tunnel restriction code	Not available.
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

RID

14.1. UN number	Not available.
14.2. UN proper shipping name	Not available.
14.3. Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

IATA

14.1. UN number	Not available.
14.2. UN proper shipping name	Not available.
14.3. Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

IMDG

14.1. UN number	Not available.
14.2. UN proper shipping name	Not available.
14.3. Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	
Marine pollutant	No.
EmS	Not available.
14.6. Special precautions for user	Not available.

Segregation group : None

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

SECTION 15: Regulatory information

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

Retained direct EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.
The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.

Alternative CAS (purpose of safety) of:
68891-38-3 = 68585-34-2

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) N° 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	Exposure scenarios relevant for this material are annexed and distributed as seperate document to this eSDS.

SECTION 16: Other information

List of abbreviations

	REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006) CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 CAS: Chemical Abstract Service EINECS: European Inventory of Existing Commercial Chemical Substances PBT: Persistent, bioaccumulative, toxic vPvB: very Persistent, very Bioaccumulative BLV: Biological Limit Value LD50: Lethal Dose 50% EC50: Effective Concentration 50% LC50: Lethal Concentration 50% IC50: Inhibition Concentration 50% ES: Exposure scenario CSR: Chemical Safety Report DNEL: Derived No Effect Level PNEC: Predicted No Effect Concentration ADR: European agreement concerning the international carriage of dangerous goods by road RID: Regulations concerning the international carriage of dangerous goods by rail IMDG Code: International Maritime Dangerous Goods Code IATA: International Air Transport Association
References	Not available.
Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
Full text of any H-statements not written out in full under Sections 2 to 15	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H412 Harmful to aquatic life with long lasting effects.
Revision information	Product and Company Identification: EU Poison Centre SECTION 2: Hazards identification: Prevention SECTION 2: Hazards identification: Response SECTION 2: Hazards identification: Supplemental label information Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties SECTION 11: Toxicological information: Acute toxicity SECTION 12: Ecological information: 12.3. Bioaccumulative potential HazReg Data: Europe - EU
Training information	Follow training instructions when handling this material.
Disclaimer	Stepan UK Limited cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.