SAFETY DATA SHEET of:

CTEC c 3.02

Revision date: Friday, June 1, 2018

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

1.1 Product identifier:

CTEC c 3.02

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

/

Concentration in use: /

1.3 Details of the supplier of the safety data sheet:

CTEC BVBA

Hagelberg 15

B2250 Olen

Phone: 014861613 — Fax: 014861617

E-mail: info@ctec.be — Website: http://www.ctec-chemicals.com/

1.4 Emergency telephone number:

+32 70 245 245

2 SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:

Classification of the substance or mixture in accordance with regulation (EU) 1272/2008:

H314 Skin Corr. 1B

2.2 Label elements:

Pictograms:

Signal word:

Danger

Hazard statements:

H314 Skin Corr. 1B: Causes severe skin burns and eye damage.

Precautionary statements:

P280: Wear protective gloves, protective clothing, eye protection, 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 or shower.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363: Wash contaminated clothing before reuse.

Contains:

Disodium metasilicate Potassium hydroxide Ethanolamine

2.3 Other hazards:

none

3 SECTION 3: Composition/information on ingredients:

Fattyalcohol C10 -14, ethoxylated propoxylated	5% - 15%	CAS number: EINECS: REACH Registration number: CLP Classification:	68439-51-0 **H400 Aquatic Acute 1**
Ethanolamine	< 5%	CAS number: EINECS: REACH Registration number: CLP Classification:	141-43-5 205-483-3 01-2119486455-28 **H302 Acute tox. 4** **H312 Acute tox. 4** **H314 Skin Corr. 1B** **H332 Acute tox. 4** **H335 STOT SE 3** **H412 Aquatic Chronic 3**
Disodium metasilicate	< 5%	CAS number: EINECS: REACH Registration number: CLP Classification:	6834-92-0, 13517-24-3 229-912-9 01-2119449811-37 **H290 Met. Corr. 1** **H314 Skin Corr. 1B** **H335 STOT SE 3**
2-bromo-2-nitropropane-1,3-diol	< 5%	CAS number: EINECS: REACH Registration number: CLP Classification:	52-51-7 200-143-0 **H302 Acute tox. 4** **H312 Acute tox. 4** **H315 Skin Irrit. 2** **H318 Eye Dam. 1** **H335 STOT SE 3** **H400 Aquatic Acute 1**

Potassium hydroxide	< 5%	CAS number: EINECS: REACH Registration number: CLP Classification:	1310-58-3 215-181-3 01-2119487136-33 **H290 Met. Corr. 1** **H302 Acute tox. 4** **H314 Skin Corr. 1A**

For the full text of the H & R phrases mentioned in this section, see section 16.

4 SECTION 4: First aid measures:

4.1 Description of first aid measures:

Always ask medical advice as soon as possible should serious or continuous disturbances occur.

Skin contact: remove contaminated clothing, rinse skin with plenty of water and immediately transport to hospital.

Eye contact: first prolonged rinsing with water (contact lenses to be removed if this is easily done) then take to physician.

Ingestion: rinse mouth, do not induce vomiting, take to hospital immediately.

Inhalation: let sit upright, fresh air, rest and take to hospital.

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

Skin contact: caustic, redness, pain, serious burns

Eye contact: caustic, redness, bad looking, pain

Ingestion: caustic, lack of breath, vomiting, blisters on lips and tongue, burning pain in mouth and throat, gullet and stomach

Inhalation: headache, dizziness, nausea, drowsiness, unconsciousness

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

none

5 SECTION 5: Fire-fighting measures:

5.1 Extinguishing media:

CO2, foam, powder, sprayed water

5.2 Special hazards arising from the substance or mixture:

none

5.3 Advice for firefighters:

Extinguishing agents to be avoided: none

6 SECTION 6: Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures:

Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up windRemove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

6.2 Environmental precautions:

do not allow to flow into sewers or open water.

6.3 Methods and material for containment and cleaning up:

Contain released substance, store into suitable containers. If possible remove by using absorbent material.

6.4 Reference to other sections:

for further information check sections 8 & 13.

7 SECTION 7: Handling and storage:

7.1 Precautions for safe handling:

handle with care to avoid spillage.

7.2 Conditions for safe storage, including any incompatibilities:

keep in a sealed container in a closed, frost-free, ventilated room.

7.3 Specific end use(s):

/

8 SECTION 8: Exposure controls/personal protection:

8.1 Control parameters:

Listing of the hazardous ingredients in section 3, of which the TLV value is known

Ethanolamine 2.5 mg/m³, Potassium hydroxide 2 mg/m³

8.2 Exposure controls:

Inhalation protection:	use with sufficient exhaust ventilation. If necessary, use an air-purifying face mask in case of respiratory hazards. Use the ABEK type as protection against these troublesome levels.	
Skin protection:	handling with nitril-gloves (EN 374). Breakthrough time: >480' Material thickness: 0,35 mm. Thoroughly check gloves before use. Take of the gloves properly without touching the outside with your bare hands. The manufacturer of the protective gloves has to be consulted about the suitability for a specific work station. Wash and dry your hands.	
Eye protection:	keep an eye-rinse bottle within reach. Tight-fitting safety goggles. Wear a face shield and protective suit in case of exceptional processing problems.	
Other protection:	impermeable clothing. The type of protective equipment depends on the concentration and amount of hazardous substances at the work station in question.	

9 SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties:

Melting point/melting range: 0 °C

Boiling point/Boiling range:	100 °C — 171 °C
pH:	12.3
pH 1% diluted in water:	/
Vapour pressure/20°C,:	2 332 Pa
Vapour density:	not applicable
Relative density, 20°C:	1.0920 kg/l
Appearance/20°C:	liquid
Flash point:	/
Flammability (solid, gas):	not applicable
Auto-ignition temperature:	/
Upper flammability or explosive limit, (Vol %):	/
Lower flammability or explosive limit, (Vol %):	/
Explosive properties:	not applicable
Oxidising properties:	not applicable
Decomposition temperature:	/
Solubility in water:	completely soluble
Partition coefficient: n-octanol/water:	not applicable
Odour:	characteristic
Odour threshold:	not applicable
Dynamic viscosity, 20°C:	1 mPa.s
Kinematic viscosity, 40°C:	1 mm²/s
Evaporation rate (n-BuAc = 1):	0.300

9.2 Other information:

Volatile organic component (VOC):	4.17 %
Volatile organic component (VOC):	46.848 g/l
Sustained combustion test :	/

10 SECTION 10: Stability and reactivity:

10.1 Reactivity:

stable under normal conditions.

10.2 Chemical stability:

extremely high or low temperatures.

10.3 Possibility of hazardous reactions:

none

10.4 Conditions to avoid:

protect from sunlight and do not expose to temperatures exceeding + 50°C.

10.5 Incompatible materials:

keep away from acids

10.6 Hazardous decomposition products:

doesn't decompose with normal use

11 SECTION 11: Toxicological information:

11.1 Information on toxicological effects:

H314 Skin Corr. 1B: Causes severe skin burns and eye damage.

Calculated acute toxicity, ATE oral: /

Calculated acute toxicity, ATE dermal: /

Fattyalcohol C10 -14, ethoxylated propoxylated	LD50 oral, rat:	≥ 5,000 mg/kg
	LD50 dermal, rabbit:	≥ 5,000 mg/kg
	LC50, Inhalation, rat, 4h:	≥ 50 mg/l
Ethanolamine	LD50 oral, rat:	1,089 mg/kg
	LD50 dermal, rabbit:	2,504 mg/kg
	LC50, Inhalation, rat, 4h:	11 mg/l
Disodium metasilicate	LD50 oral, rat:	1,152 mg/kg
	LD50 dermal, rabbit:	≥ 5,000 mg/kg
	LC50, Inhalation, rat, 4h:	≥ 50 mg/l
2-bromo-2-nitropropane-1,3-diol	LD50 oral, rat:	300 mg/kg
	LD50 dermal, rabbit:	≥ 5,000 mg/kg
	LC50, Inhalation, rat, 4h:	11 mg/l
Potassium hydroxide	LD50 oral, rat:	356 mg/kg
	LD50 dermal, rabbit:	≥ 5,000 mg/kg
	LC50, Inhalation, rat, 4h:	≥ 50 mg/l

12 SECTION 12: Ecological information:

12.1 Toxicity:

Ethanolamine	LC50 (Fish):	349 mg/L (Cyprinus carpio) (4d)
	NOEC (Fish):	1,24 mg/L (Oryzias latipes) (41d)
	EC50 (Daphnia):	65 mg/L (48h)
	NOEC (Daphnia):	850 µg/L (21d)
	EC50 (Algae):	2.1 - 2.8 mg/L (72h)
	NOEC (Algae):	1 mg/L (72h)
Disodium metasilicate	LC50 (Fish):	210 mg/l, 96h, (Brachydanio rerio)
	EC50 (Daphnia):	1700 mg/l, 48h
	EC50 (Algae):	207 mg/l, 72h

12.2 Persistence and degradability:

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

12.3 Bioaccumulative potential:

	Additional data:
Ethanolamine	Log Pow: -2,3 - -1,31

12.4 Mobility in soil:

Water hazard class, WGK (AwSV): 2

Solubility in water: completely soluble

12.5 Results of PBT and vPvB assessment:

No additional data available

12.6 Other adverse effects:

No additional data available

13 SECTION 13: Disposal considerations:

13.1 Waste treatment methods:

The product may be discharged in the indicated percentages of utillization, provided it is neutralised to pH 7. Possible restrictive regulations by local authority should always be adhered to.

14 SECTION 14: Transport information:

14.1 UN number:

1719

14.2 UN proper shipping name:

UN 1719 Caustic alkali liquid, n.o.s. (mixture with Ethanolamine; Disodium metasilicate) , 8, II, (E)

14.3 Transport hazard class(es):

Class(es): 8

Identification number of the hazard: 80

14.4 Packing group:

II

14.5 Environmental hazards:

not dangerous to the environment

14.6 Special precautions for user:

Hazard characteristics: Risk of burns. Risk to the aquatic environment and the sewerage system.

Additional guidance:

15 SECTION 15: Regulatory information:

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

Water hazard class, WGK (AwSV):	2
Volatile organic component (VOC):	4.165 %
Volatile organic component (VOC):	46.848 g/l
Composition by regulation (EC) 648/2004:	Nonionic surfactants 5% - 15%, Anionic surfactants 5% - 15%, Phosphonates 5% - 15%, Preservatives (2-Bromo-2-Nitropropane-1,3-Diol)

15.2 Chemical Safety Assessment:

No data available

16 SECTION 16: Other information:

Legend to abbreviations used in the safety data sheet:

ADR:	The European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF:	Bioconcentration factor
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging of chemicals
EINECS:	European INventory of Existing Commercial chemical Substances
Nr.:	number
PTB:	persistent, toxic, bioaccumulative
TLV:	Threshold Limit Value
vPvB:	very persistent and very bioaccumulative substances
WGK:	Water hazard class
WGK 1:	slightly hazardous for water
WGK 2:	hazardous for water
WGK 3:	extremely hazardous for water

Legend to the H Phrases used in the safety data sheet:

H290 Met. Corr. 1: May be corrosive to metals. **H302 Acute tox. 4:** Harmful if swallowed. **H312 Acute tox. 4:** Harmful in contact with skin. **H314 Skin Corr. 1A:** Causes severe skin burns and eye damage. **H314 Skin Corr. 1B:** Causes severe skin burns and eye damage. **H315 Skin Irrit. 2:** Causes skin irritation. **H318 Eye Dam. 1:** Causes serious eye damage. **H332 Acute tox. 4:** Harmful if inhaled. **H335 STOT SE 3:** May cause respiratory irritation. **H400 Aquatic Acute 1:** Very toxic to aquatic life. **H412 Aquatic Chronic 3:** Harmful to aquatic life with long lasting effects.

Reason of revision, changes of following items:

Section: 9.2

MSDS reference number:

ECM-5483,90

This safety information sheet has been compiled in accordance with annex II/A of the regulation (EU) No 2015/830. Classification has been calculated in accordance with European regulation 1272/2008 with their respective amendments. It has been compiled with the utmost care. We cannot, however, accept responsibility for damage, of any kind, that may be caused by using these data or the product concerned. To use this preparation for an experiment or a new application , the user must carry out a material suitability and safety study himself.