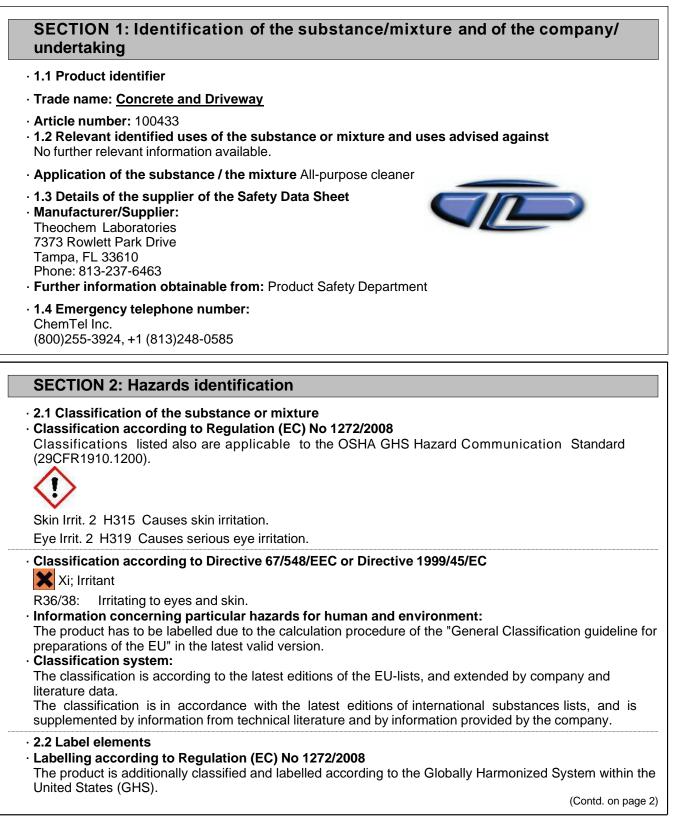
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Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

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(Contd. of page 1) The product is classified and labelled according to the CLP regulation. • Hazard pictograms
GHS07
Signal word Warning Hazard-determining components of labelling:
disodium metasilicate
Hazard statements
H315 Causes skin irritation. H319 Causes serious eye irritation.
Precautionary statements
P280Wear protective gloves / eye protection.P264Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
P332+P313If skin irritation occurs: Get medical advice/attention.P337+P313If eye irritation persists: Get medical advice/attention.P302+P352IF ON SKIN: Wash with plenty of water.
· Hazard description:
WHMIS-symbols: D2B - Toxic material causing other toxic effects
D2B - Toxic material causing other toxic effects
(\mathbf{I})
· NFPA ratings (scale 0 - 4)
Health = 1 Fire = 1 Reactivity = 0
· HMIS-ratings (scale 0 - 4)
HEALTH1Health = 1FIRE1Fire = 1REACTIVITYReactivity = 0
· HMIS Long Term Health Hazard Substances
None of the ingredients are listed.
· 2.3 Other hazards
 Results of PBT and vPvB assessment PBT: Not applicable.
· vPvB: Not applicable.

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Dangerous components:		
CAS: 111-76-2 EINECS: 203-905-0 Index number: 603-014-00-0	2-butoxyethanol Xn R20/21/22; Xi R36/38 ◆ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	≤ 2,5%
CAS: 6834-92-0 EINECS: 229-912-9 Index number: 014-010-00-8	disodium metasilicate C R34; Xi R37 Met. Corr.1, H290; Skin Corr. 1B, H314 STOT SE 3, H335	≤ 2,5%
CAS: 68131-39-5 NLP: 500-195-7	alcohols, C12-15, ethoxylated Xi R41; N R50 ✓ Eye Dam. 1, H318 ✓ Aquatic Acute 1, H400	< 1%
Additional information: For	the wording of the listed risk phrases refer to section 16.	ł

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After Innalation: Supply fresh air; consult doctor in case of complaints.
 After skin contact:
 Immediately rinse with water.
 If skin irritation continues, consult a doctor.

 After eye contact:
 Remove contact lenses if worn.
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

 After swallowing:
 Rinse out mouth and then drink plenty of water.
 Do not induce vomiting; call for medical help immediately.

 4.2 Most important symptoms and effects, both acute and delayed
 Headache
 Gastric or intestinal disorders.
 Dizziness
 Irritant to skin and mucous membranes.
- Hazards Danger of gastric perforation.
- \cdot 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

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SECTION 5: Firefighting measures

· 5.1 Extinguishing media

• Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

· For safety reasons unsuitable extinguishing agents: None.

• 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- · 5.3 Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information No further relevant information available.

SECTION 6: Accidental release measures

 6.1 Personal precautions, protective equipment and emergency procedures Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.
 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
Clean the affected area carefully; suitable cleaners are:
Warm water
Dispose contaminated material as waste according to item 13.
6.4 Reference to other sections
See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Use only in well ventilated areas. Prevent formation of aerosols.
- Information about fire and explosion protection: No special measures required.

· 7.2 Conditions for safe storage, including any incompatibilities

- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location. Unsuitable material for receptacle: aluminium.
- Information about storage in one common storage facility:
- Do not store together with acids.

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Store away from foodstuffs.

Store away from oxidising agents.

• Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

 \cdot 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters

\cdot Ingredients with limit values that require monitoring at the workplace:	
111-76-2 2-butoxyethanol	

IOELV (EU)	Short-term value: 246 mg/m ³ , 50 ppm Long-term value: 98 mg/m ³ , 20 ppm Skin			
PEL (USA)	Long-term value: 240 mg/m³, 50 ppm Skin			
REL (USA)	Long-term value: 24 mg/m³, 5 ppm Skin			
TLV (USA)	Long-term value: 97 mg/m ³ , 20 ppm BEI			
EL (Canada)	Long-term value: 20 ppm			
EV (Canada)	Long-term value: 20 ppm Skin			
Ingredients with biological limit values:				
111-76-2 2-butoxyethanol				
BEI (USA) 200 mg/g creatinine				
Medium: urine				
Time: end of shift Parameter: Butoxyacetic acid with hydrolysis				
Additional information: The lists valid during the making were used as basis.				
 · 8.2 Exposure controls · Personal protective equipment: 				
· General protective and hygienic measures:				
	Keep away from foodstuffs, beverages and feed.			
Immediately remove all soiled and contaminated clothing.				
Wash hands before breaks and at the end of work.				
· Respiratory p	with the eyes and skin.			
	espiratory protective device in case of insufficient ventilation.			
	piratory protection may be advisable.			
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· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- For the permanent contact gloves made of the following materials are suitable:
- Butyl rubber, BR Neoprene gloves Nitrile rubber, NBR • Eye protection:



Safety glasses

Goggles recommended during refilling

- Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment
- No further relevant information available.
- · Risk management measures
- See Section 7 for additional information.

No further relevant information available.

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form:	Liquid
Colour:	Violet
· Odour:	Aromatic
· Odour threshold:	Not determined.
· pH-value at 20 °C:	12,0-13,0
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Not Determined. 100 °C (212 °F)

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		(Contd. of page
· Flash point:	> 93,3 °C (>200 °F)	
· Flammability (solid, gaseous):	Not applicable.	
· Auto/Self-ignition temperature:		
Decomposition temperature:	Not determined.	
· Self-igniting:	Product is not self-igniting.	
 Danger of explosion: 	Product does not present an explosion hazard.	
· Explosion limits: Lower: Upper:	Not determined. Not determined.	
· Vapour pressure at 20 °C:	23 hPa	
 Density at 20 °C: Relative density Vapour density Evaporation rate 	1,02 g/cm ³ Not determined. Not determined. Not determined.	
 Solubility in / Miscibility with water: 	Fully miscible.	
· Partition coefficient (n-octanol/wate	er): Not determined.	
 Viscosity: Dynamic: Kinematic: 9.2 Other information 	Not determined. Not determined. No further relevant information available.	

SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

• 10.3 Possibility of hazardous reactions

Strong exothermic reaction with acids.

Corrosive action on metals.

Reacts with strong oxidising agents.

• 10.4 Conditions to avoid No further relevant information available.

• 10.5 Incompatible materials: No further relevant information available.

• 10.6 Hazardous decomposition products: Possible in traces.

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SECTION 11: Toxicological information

• 11.1 Information on toxicological effects

- · Acute toxicity:
- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- Sensitisation: No sensitising effects known.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability biodegradable
- · 12.3 Bioaccumulative potential Does not accumulate in organisms.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably reduced, the aqueous waste, emptied into drains, is only low water-dangerous.

Water Hazard Class (Self-classification) in the concentrate.

12.5 Results of PBT and vPvB assessment

- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

· Uncleaned packaging:

• **Recommendation:** Disposal must be made according to official regulations.

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· Recommended cleansing agents: Water only.

SECTION 14: Transport information

 14.1 UN-Number DOT, ADR, ADN, IMDG, IATA 14.2 UN proper shipping name DOT, ADR, ADN, IMDG, IATA 14.3 Transport hazard class(es) 	Not Regulated Not Regulated
 DOT, ADR, ADN, IMDG, IATA Class 14.4 Packing group DOT, ADR, IMDG, IATA 14.5 Environmental hazards: 	Not Regulated Not Regulated
 Marine pollutant: 14.6 Special precautions for user 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code UN "Model Regulation": 	No Not applicable. Not applicable.

SECTION 15: Regulatory information

• 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture • United States (USA)

· SARA

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

111-76-2 2-butoxyethanol

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65 (California):

· Chemicals known to cause cancer:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product. 64-17-5 ethanol

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 ethanol

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· Carcinoo	genic Categories	ontd. of page
	vironmental Protection Agency)	
111-76-2	2-butoxyethanol	NL
· IARC (Int	ternational Agency for Research on Cancer)	I
111-76-2	2-butoxyethanol	3
64-17-5	ethanol	1
· TLV (Thr	eshold Limit Value established by ACGIH)	•
111-76-2	2-butoxyethanol	A3
64-17-5	ethanol	A3
All ingred Canadiar 64-17-5	n Domestic Substances List (DSL) lients are listed. n Ingredient Disclosure list (limit 0.1%) ethanol n Ingredient Disclosure list (limit 1%)	
	2 2-butoxyethanol	
	0 disodium metasilicate	
National	regulations:	
This prod and the S	gulations, limitations and prohibitive regulations luct has been classified in accordance with hazard criteria of the Controlled Products DS contains all the information required by the Controlled Products Regulations. ces of very high concern (SVHC) according to REACH, Article 57	Regulation

None of the ingredients are listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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H400	Very toxic to aquatic life.	(Contd. of page 10)
R20/21/2 R34 R36/38 R37 R41 R50	 22 Harmful by inhalation, in contact with skin and if swallowed. Causes burns. Irritating to eyes and skin. Irritating to respiratory system. Risk of serious damage to eyes. Very toxic to aquatic organisms. 	•
ADR: Accor Internationa IMDG: Inter DOT: US D IATA: Interr GHS: Globa ACGIH: Am EINECS: Eu CAS: Chem NFPA: Natio HMIS: Haza WHMIS: Wo VOC: Volati Met. Corr. 1 Skin Corr. 1 Skin Irrit. 2: Eye Dam. 1 Eye Irrit. 2: STOT SE 3	ations and acronyms: ord européen sur le transport des marchandises dangereuses par Route (E al Carriage of Dangerous Goods by Road) ernational Maritime Code for Dangerous Goods Department of Transport Association mational Air Transport Association oally Harmonised System of Classification and Labelling of Chemicals merican Conference of Governmental Industrial Hygienists European Inventory of Existing Commercial Chemical Substances suropean List of Notified Chemical Substances mical Abstracts Service (division of the American Chemical Society) tional Fire Protection Association (USA) vardous Materials Identification System (USA) /orkplace Hazardous Materials Information System (Canada) tile Organic Compounds (USA, EU) 1: Corrosive to metals, Hazard Category 1 4: Acute toxicity, Hazard Category 4 1B: Skin corrosion/irritation, Hazard Category 1B 2: Skin corrosion/irritation, Hazard Category 2 1: Serious eye damage/eye irritation, Hazard Category 2 3: Specific target organ toxicity - Single exposure, Hazard Category 3 sute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1	European Agreement concerning the