

Printing date 03/23/2023

**1** Identification

## Reviewed on 03/23/2023

Clean Solutions Group. | Packaging print

Safety Data Sheet acc. to OSHA HCS

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Trade name: Flexoclean Super

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- \* Other hazards \* Results of PBT and vPvB assessment
- \* **PBT:** Not applicable.
- \* **vPvB:** Not applicable.

### 3 Composition/information on ingredients

#### \* Chemical characterization: Mixtures

\* **Description:** Mixture of the substances listed below with nonhazardous additions.

111-76-2	butyl cellosolve	1-5%
	Acute Toxicity - Oral 4, H302; Acute Toxicity - Inhalation 4, H332; Skin Irritation 2, H315; Eye Irritation 2A, H319; Flammable Liquids 4, H227	]
	Detergent: Non-Ionic    ① Eye Irritation 2A, H319	1-5%
141-43-5	2-aminoethanol Skin Corrosion 1A, H314; Eye Damage 1, H318; Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Acute Toxicity - Inhalation 4, H332; Specific Target Organ Toxicity - Single Exposure 3, H335	1-5%

#### 4 First-aid measures

- \* Description of first aid measures
- \* After inhalation: Supply fresh air; consult doctor in case of complaints.
- \* After skin contact: Immediately rinse with water.
- \* After eye contact: Rinse opened eye for several minutes under running water.
- \* After swallowing: If symptoms persist consult doctor.
- \* Information for doctor:
- \* Most important symptoms and effects, both acute and delayed No further relevant information available.
- \* Indication of any immediate medical attention and special treatment needed No further relevant information available.

### **5 Fire-fighting measures**

- \* Extinguishing media
- \* Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- \* Special hazards arising from the substance or mixture No further relevant information available.
- \* Advice for firefighters
- \* Protective equipment: No special measures required.

#### 6 Accidental release measures

- \* Personal precautions, protective equipment and emergency procedures Not required.
- \* Environmental precautions: Dilute with plenty of water.
- Do not allow to enter sewers/ surface or ground water.
- \* Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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* Reference to other sections	(Contd. of page 2)
See Section 7 for information on safe handling.	
See Section 8 for information on personal protection equipment.	
See Section 13 for disposal information.	
* Protective Action Criteria for Chemicals	
* PAC-1:	
111-76-2 butyl cellosolve	60 ppm
141-43-5 2-aminoethanol	6 ppm
* PAC-2:	
111-76-2 butyl cellosolve	120 ppm
141-43-5 2-aminoethanol	170 ppm
* PAC-3:	
111-76-2 butyl cellosolve	700 ppm
141-43-5 2-aminoethanol	1,000 ppm

## 7 Handling and storage

\* Handling:

- \* Precautions for safe handling No special precautions are necessary if used correctly.
- \* Information about protection against explosions and fires: No special measures required.
- \* Conditions for safe storage, including any incompatibilities
- \* Storage:
- \* Requirements to be met by storerooms and receptacles: No special requirements.
- \* Information about storage in one common storage facility: Not required.
- \* Further information about storage conditions: None.
- \* **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

\* Additional information about design of technical systems: No further data; see item 7.

- \* Control parameters
- \* Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

111-7	76-2 butyl cellosolve
PEL	Long-term value: 240 mg/m <sup>3</sup> , 50 ppm Skin
REL	Long-term value: 24 mg/m³, 5 ppm Skin
TLV	Long-term value: 20 ppm BEI, A3
141-4	43-5 2-aminoethanol
PEL	Long-term value: 6 mg/m <sup>3</sup> , 3 ppm
REL	Short-term value: 15 mg/m <sup>3</sup> , 6 ppm Long-term value: 8 mg/m <sup>3</sup> , 3 ppm
TLV	Short-term value: 6 ppm Long-term value: 3 ppm
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(Contd. of page 3) \* Ingredients with biological limit values: 111-76-2 butyl cellosolve BEI 200 mg/g creatinine Medium: urine Time: end of shift Parameter: Butoxyacetic acid (BAA) (with hydrolysis) \* Additional information: The lists that were valid during the creation were used as basis. \* Exposure controls \* Personal protective equipment: \* General protective and hygienic measures: Wash hands before breaks and at the end of work. \* Breathing equipment: Not necessary if room is well-ventilated. \* 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 Material : butyl rubber + nitrile Thickness of the glove  $:\ge 0.7$  mm Penetration time  $:\ge 480$  min 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed. \* Eye protection: Safety glasses \* Body protection: Use protective suit. 9 Physical and chemical properties \* Information on basic physical and chemical properties \* General Information \* Appearance: Form: Fluid Color: Clear

Characteristic

Not determined.

- \* Odor: \* Odor threshold:
- \* pH-value at 20 °C (68 °F):
   10.5

   \* Change in condition Melting point/Melting range:
   Undetermined.

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Boiling point/Boiling range:	100 °C (212 °F)	
* Flash point:	>100 °C (>212 °F)	
* Flammability (solid, gaseous):	Not applicable.	
* Decomposition temperature:	Not determined.	
* Auto igniting:	Product is not selfigniting.	
* Lower:	Product does not present an explosion hazard. Not determined. Not determined.	
* Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)	
* Relative density * Vapor density	1 g/cm <sup>3</sup> (8.35 lbs/gal) Not determined. Not determined. Not determined.	
* Solubility in / Miscibility with Water:	Fully miscible.	
* Kinematic: * Solvent content:	Not determined. Not determined. Not determined. 6.48 %	
	No further relevant information available.	

## 10 Stability and reactivity

- \* Reactivity No further relevant information available.
- \* Chemical stability
- \* Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- \* Possibility of hazardous reactions No dangerous reactions known.
- \* Conditions to avoid No further relevant information available.
- \* Incompatible materials: No further relevant information available.
- \* Hazardous decomposition products: No dangerous decomposition products known.

## 11 Toxicological information

- \* Information on toxicological effects
- \* Acute toxicity:

* LD/LC50	values tha	at are relevant for classification:
111-76-2	butyl cello	osolve
Oral	LD50	1,200 mg/kg (ATE)
		1,480 mg/kg (rat)
Dermal	LD50	400 mg/kg (rat)
Inhalative	LC50/4 h	11 mg/l (ATE)
141-43-5	2-aminoet	hanol
Oral	LD50	2,050 mg/kg (rat)
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Dermal LD50 1,000 mg/kg (rabbit) Inhalative LC50/4 h 11 mg/l (ATE)
* Primary irritant effect:
* on the skin: Irritant to skin and mucous membranes.
* on the eye:
Strong irritant with the danger of severe eye injury.
Irritating effect. * Additional toxicological information:
•
* Carcinogenic categories
* IARC (International Agency for Research on Cancer) 111-76-2 butyl cellosolve
•
* NTP (National Toxicology Program)
None of the ingredients is listed.
* OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.
<ul> <li>* Mobility in soil No further relevant information available.</li> <li>* Additional ecological information:</li> <li>* General notes:</li> <li>Water hazard class 1 (Self-assessment): slightly hazardous for water</li> <li>Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.</li> <li>* Results of PBT and vPvB assessment</li> <li>* PBT: Not applicable.</li> <li>* vPvB: Not applicable.</li> <li>* Other adverse effects No further relevant information available.</li> </ul>
13 Disposal considerations
* Waste treatment methods * Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage syste
* Uncleaned packagings: * Recommendation: Disposal must be made according to official regulations. * Recommended cleansing agent: Water, if necessary with cleansing agents.
14 Transport information
* UN-Number

\* UN-Number \* DOT, ADR, IMDG, IATA

Void



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		(Contd. of page 6)
* UN proper shipping name * DOT, ADR, IMDG, IATA	Void	
* Transport hazard class(es)		
* DOT, ADR, ADN, IMDG, IATA * Class	Void	
* Packing group * DOT, ADR, IMDG, IATA	Void	
* Environmental hazards:	Not applicable.	
* Special precautions for user	Not applicable.	
* Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
* UN "Model Regulation":	Void	

# **15 Regulatory information**

* Safety, health and environmental regulations/legislation specific for the * Sara	e substance or mixture
* Section 355 (extremely hazardous substances):	
None of the ingredient is listed.	
* Section 313 (Specific toxic chemical listings):	
111-76-2 butyl cellosolve	
* TSCA (Toxic Substances Control Act):	
All components have the value ACTIVE.	
* Hazardous Air Pollutants	
None of the ingredients is listed.	
* Proposition 65	
* Chemicals known to cause cancer:	
None of the ingredients is listed.	
* Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
* Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
* Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
* Cancerogenity categories	
* EPA (Environmental Protection Agency)	
111-76-2 butyl cellosolve	N
* TLV (Threshold Limit Value)	· · ·
111-76-2 butyl cellosolve	A
* MAK (German Maximum Workplace Concentration)	
111-76-2 butyl cellosolve	
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### \* NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

\* National regulations:

\* Technical instructions (air):



\* Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. \* Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### 16 Other information

The information given in this Material Safety Sheet refer to the product described in this sheet, and is provided in the supposition that the product will be used in a proper way and for the purpose indicated by the manufacturer.

It is the responsibility of the user to take advised precautions, and also to make sure that this information is complete and sufficient for the use of the product. It is recommended to pass this information, if necessary, in an adapted form, to personnel and other interested parties.

Manufacturer does not carry any responsibility for use of the product, in any way, which is not in accordance with the instructions and the purposes indicated by the manufacturer.

\* Classification according to Regulation (EC) No 1272/2008

Based on test data and own calculation method

\* Contact:

\* NFPA-ratings (scale 0 - 4)



Health = 2Fire = 1 Reactivity = 0

\* HMIS-ratings (scale 0 - 4)

HEALTH Health = \*2 1 Fire = 1FIRF Reactivity = 0 REACTIVITY 0

\* Date of preparation / last revision 03/23/2023 \* Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety **OSHA: Occupational Safety & Health** 

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

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(Contd. of page 8) REL: Recommended Exposure Limit BEI: Biological Exposure Limit Flammable Liquids 4: Flammable liquids – Category 4 Acute Toxicity - Oral 4: Acute toxicity – Category 4 Skin Corrosion 1A: Skin corrosion/irritation – Category 1A Skin Irritation 2: Skin corrosion/irritation – Category 2 Eye Damage 1: Serious eye damage/eye irritation – Category 1 Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3 \* Sources http://echa.europa.eu \*\* Data compared to the previous version altered. \*