



SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC

Print date: 07.07.2021

Revision date: 17.01.2024

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

### 1.1 Product identifier

**Product:** mechatron LC / mechatron LCC

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

**Uses advised against:** None

**Use of the substance/  
mixture:** Heat transfer fluid, cooling brine, antifreeze, corrosion protection agent

### 1.3 Details of the supplier of the safety data sheet

**Company:** **mechatron GmbH**  
Werner-von-Siemens-Str. 35  
64319 Pfungstadt  
Germany

**Telephone:** +49 6151 49 244 70

**Telefax:** +49 6151 49 244 89

**E-Mail:** info@mechatron-gmbh.de

**Homepage:** www.mechatron-gmbh.de

**Info about substance/  
mixture:** Rainer Wohlmann, Tel. +49 6151 49 244 70,  
info@mechatron-gmbh.de

### 1.4 Emergency telephone number

**Number:** +49 6151 49 244 70 (Mo. – Fr., 8:00 – 17:00)

**Responsible:** Rainer Wohlmann, Tel. +49 6151 49 244 70,  
info@mechatron-gmbh.de

**Emergency information:** Giftnotruf Mainz - 24 hours emergency service  
Tel. +49 6131 19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) No.  
1272/2008:** Hazard categories:  
Acute toxicity: Acute Tox. 4

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Harmful if swallowed.

May cause damage to organs through prolonged or repeated exposure.

## 2.2 Label elements

**Regulation (EC) No.**

**1272/2008:**

**Signal word:**

**Pictograms:**

Hazard components for labelling

Ethanediol, Ethylene glycol

Warning



GHS 07



GHS 08

**Hazard statements:**

H302

Harmful if swallowed.

H373

May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements:** P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P270

Do not eat, drink or smoke when using this product.

P301+P312

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330

Rinse mouth.

P314

Get medical advice/attention if you feel unwell.

P501

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

**Additional advice on**

**labelling:**

The product is labeled in accordance with Regulation (EC) no. 1272/2008 (GHS).

## 2.3 Other hazards

According to Regulation (EC) No 1907/2006 (REACH), this product is regarded to be neither PBT nor vPvB.

High risk of slipping due to leakage/spillage of product.



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Product name: mechatron LC / mechatron LCC

Print date: 07.07.2021

Revision date: 17.01.2024

## SECTION 3: Composition/information on ingredients

### 3.1 Mixtures

**Chemical characterization:** Mixture of the following substances with non-hazardous admixtures

#### Hazardous components

CAS-Nr.	Chemical name			Quantity (%w/w)
	EG-Nr.	Index.Nr.	REACH-Nr.	
	GHS-classification			
107-21-1	Mono ethylene glycol(vgl. Glykol)			90 - 98 %
	203-473-3		01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
532-32-1	Sodium benzoate			1 - 5 %
	208-534-8		01-2119460683-35	
	Eye Irrit. 2; H319			
17265-14-4	Disodiumsebacat			1 - 3 %
	241-300-3		01-2120762063-61	
	Eye Dam./Irrit. 2; H319			

#### Full text of H and EUH

**statements:** see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information:** Remove contaminated soaked clothing immediately. In the event of persistent symptoms receive medical treatment.

**After inhalation:** Move to fresh air in case of accidental inhalation of vapours. In the event of symptoms refer for medical treatment.

**After contact with skin:** Wash off immediately with soap and plenty of water. Consult a doctor if skin irritation persists.

**After contact with eyes:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical treatment by eye specialist.



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC  
Print date: 07.07.2021  
Revision date: 17.01.2024

**After ingestion:** Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Seek medical treatment immediately. Symptoms of poisoning may not occur for many hours, therefore keep under medical supervision for at least 48 hours.

### 4.2. Most important symptoms and effects, both acute and delayed

May cause damage to organs through prolonged or repeated exposure. (kidney, oral)  
Harmful if swallowed.

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

Treat symptoms.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Alcohol-resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>), water-spray.

**Unsuitable extinguishing media:** Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Fire may produce: carbon monoxide and carbon dioxide Under certain fire conditions traces of other toxic substances cannot be excluded. Vapours may form explosive mixture with air.

### 5.3 Advice for firefighters

Cool containers at risk with water spray jet. Use breathing apparatus with independent air supply. Wear full protective suit. Suppress escaping gasses/vapours with directed water spray jet.

**Additional information:** Collect contaminated fire-fighting water, avoid any release into the sewerage. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC

Print date: 07.07.2021

Revision date: 17.01.2024

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator. Ensure adequate ventilation. Avoid contact with eyes, skin or mucous membrane. Use personal protective clothing.

#### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/ground water.

#### 6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Shovel into suitable container for disposal.

#### 6.4 Reference to other sections

Information for disposal see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

**Advice on safe handling:** Use only in thoroughly ventilated areas. Avoid contact with eyes, skin or mucous membrane. Care for thoroughly room ventilation, if necessary suck off at workplace.

**Advice on protection against fire and explosion:** Keep away from sources of ignition - No smoking. Take measures against electrostatically charging. Vapours can form an explosive mixture with air.

**Further information on handling:** Avoid formation of aerosols. Do not inhale vapour/aerosol. In case of insufficient ventilation, especially in confined areas.

#### 7.2 Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels:** Store only in original container at cool and aired place. Keep in a dry place.

**Advice on storage compatibility:** Keep away from food, drink and animal feeding stuffs.

**Further information on storage conditions:** Keep container tightly closed.



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC  
Print date: 07.07.2021  
Revision date: 17.01.2024

### 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Components with limit values that require monitoring at the workplace:** Ethan-1,2-diol (Monoethylene glycol, MEG)  
CAS-No.: 107-21-1  
EG-No.: 203-473-3

#### Exposure limit:

#### IOELV European Union (2000/39/EWG)

Ethylene glycol

Long-term value: 52 mg/m<sup>3</sup> 20 ml/m<sup>3</sup>

Short-term value: 104 mg/m<sup>3</sup> 40 ml/m<sup>3</sup>

#### AGW (Germany) / TRGS 900

Ethandiol

Value: 26 mg/m<sup>3</sup> 10 ml/m<sup>3</sup>

Peak limit: 2(l)

Skin absorption / sensitization: H

Pregnancy group: Y

#### Ethan-1,2-diol, CAS 107-21-1 / EG Nr. 203-473-3

DNEL Values	Route of exposure	Exposure time	Effect	Value
(Employee)	dermal	Long-term (chronically)	systemic	106 mg/kg/day
	inhalative	Long-term (chronically)	local	35 mg/m <sup>3</sup>

#### Ethan-1,2-diol, CAS 107-21-1 / EG Nr. 203-473-3

DNEL Values	Route of exposure	Exposure time	Effect	Value
(Consumer)	dermal	Long-term (chronically)	systemic	53 mg/kg/day
	inhalative	Long-term (chronically)	local	7 mg/m <sup>3</sup>



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Product name: mechatron LC / mechatron LCC

Print date: 07.07.2021

Revision date: 17.01.2024

**Ethan-1,2-diol, CAS 107-21-1 / EG Nr. 203-473-3**

PNEC Values	Environmental compartment	Type	Value
	Water	Fresh water	10 mg/l
	Water	Sea water	1 mg/l
	Water	Fresh Water Sediment	20,9 mg/l
	Water	AQUA intermittent	10 mg/kg
	Soil	-	1,53 mg/kg
	Sewage plant (STP)	-	199,5 mg/l

**8.2 Exposure controls****Appropriate engineering****controls:**

Ensure adequate ventilation, especially in confined areas.

**Protective and hygiene****measures:**

Wash hands before breaks and immediately after handling the product.

When using do not eat, drink or smoke.

Avoid contact with skin, eyes and clothing.

Take off immediately all contaminated clothing.

**Eye/face protection:**

Tightly fitting goggles (EN 166).

Eye wash bottle with pure water (EN 15154).

**Hand protection:**

Chemical-resistant gloves (EN 374).

Suitable materials also for extended, direct contact (recommended: protection index 6, corresponding to a permeation rate &gt; 480 minutes according to EN 374): Nitrile rubber/nitrile latex - NBR (0,35 mm), Butyl rubber - Butyl (0,5 mm).

Follow the recommendations of the glove manufacturer for break through properties especially for workplace conditions involving mechanical stress and contact duration.

**Skin protection:**

Long sleeved clothing (EN 368).

**Respiratory protection:**

No personal respiratory protective equipment normally required.

Breathing apparatus in the event of aerosol or mist formation.



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC  
Print date: 07.07.2021  
Revision date: 17.01.2024

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General information

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Pink
<b>Odour:</b>	Odourless
<b>pH-Value (at 20 °C):</b>	7,3-8,3
<b>Melting point:</b>	-13 °C
<b>Boiling point:</b>	197,4 °C
<b>Flash point:</b>	111 °C
<b>Explosive properties:</b>	The product is not explosive.
<b>Lower explosion limits:</b>	3,2 Vol%
<b>Upper explosion limits:</b>	15,3 Vol%
<b>Ignition temperature:</b>	> 400 °C
<b>Oxidizing properties:</b>	The product is not self-igniting.
<b>Vapour pressure (20 °C):</b>	0,2 hPa
<b>Density:</b>	1,12 g / cm <sup>3</sup>
<b>pH-Value 1%:</b>	No data available
<b>Water solubility (20 °C):</b>	Completely miscible
<b>Viscosity:</b>	dynamic at 20 °C 16,1 mPa / s kinematic at 20 °C 20-30 mm <sup>2</sup> / s

#### 9.2 Other information

No data available





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Product name: mechatron LC / mechatron LCC  
Print date: 07.07.2021  
Revision date: 17.01.2024

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents. In use formation of flammable/explosive vapour-air mixtures possible.

### 10.4 Conditions to avoid

No decomposition if used as directed.

### 10.5 Incompatible materials

Oxidizing agents, perchloric acid, alkali hydroxides, chromyl chloride, zinc

### 10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide  
Carbonyl compounds  
Dioxolan compounds

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects:

#### Ethan-1,2-diol, CAS 107-21-1 / EG Nr. 203-473-3:

Acute oral toxicity:	LD50, Rat	7712 mg/kg
Acute dermal toxicity:	LD50, Mouse	> 3500 mg/kg
Acute inhalation toxicity:	LC50, Rat	> 2,5 mg /l (6 Stunden)

#### Other information:

Acute toxicity:	LD50, Rat, intraperitoneally	5010 mg/kg
	LD50, Rat, subcutaneous	2800 mg/kg
	LD50, Rat, intravenous	3260 mg/kg



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC  
Print date: 07.07.2021  
Revision date: 17.01.2024

### Primary irritant effect:

Irritant effect skin: Light irritation possible.  
Irritant effect eye: Short-term and reversible light irritation possible.  
Sensitization: No sensitizing effect.  
Severe effects after repeated or prolonged exposure: May cause damage to organs through prolonged or repeated exposure.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Ethan-1,2-diol**, CAS 107-21-1 / EG Nr. 203-473-3:

Aquatic toxicity:	Fish (Phimephales promelas), LC50:	72860 mg/l/96h
	Daphnia (Daphnia magna), EC50:	74000 mg/l/24h
	Algae green algae I5, EC50:	> 10000 mg/l/7 d.
	Onchorrhynchus mykiss, LC50:	18500 mg/l/96h
	Bakteria (activated sludge), EC20:	> 1995 mg/l/30 min.

### 12.2 Persistence and degradability

The product has no harmful effect on the environment.

It is readily biodegraded according to OECD 301E / EEC 84/449 C3.

Elimination: > 70% DOC Zahn-Wellens-Test  
> 99% (21d; mod. Sturm-Test)

Valuation: Readily biodegraded.

CSB: 1,29 g O<sub>2</sub>/kg

BSB<sub>5</sub>: 0,81 g O<sub>2</sub>/g

Ratio BSB/CSB: 63%

DOC: 90-100% in 10 days

### 12.3 Bioaccumulative potential

No bioaccumulation is expected.



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC  
Print date: 07.07.2021  
Revision date: 17.01.2024

### 12.4 Mobility in the soil

No data available.

**Ecotoxic effects:** With the appropriate introduction of low concentrations into adapted biological waste water treatment plants, trouble is not to be expected in the decomposition activity of activated sludge.

**General information:** Water hazard class: WHC 1: slightly hazardous for water

### 12.5 Results of PBT and vPvB assessment

PBT: Not determined  
vPvB: Not determined

### 12.6 Other adverse effects

Not determined.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Advice on disposal: Should not be disposed of with household waste. Do not flush into surface water or sanitary sewer system.

Where possible recycling is preferred to disposal. The waste code number must be agreed with the disposer / manufacturer / competent authority.

Waste disposal number of waste from residues/unused products:

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

Waste disposal number of used product:

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

Waste disposal number of contaminated packaging:

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED;



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Product name: mechatron LC / mechatron LCC

Print date: 07.07.2021

Revision date: 17.01.2024

packaging (including separately collected municipal packaging waste); plastic packaging  
Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of like the product.  
Cleaning agent: Water

## SECTION 14: Transport information

### Land transport (ADR/RID):

#### 14.1 UN-number

No dangerous good in sense of this transport regulation.

#### 14.2 UN proper shipping name

No dangerous good in sense of this transport regulation.

#### 14.3 Transport hazard class(es)

No dangerous good in sense of this transport regulation.

#### 14.4 Packing group

No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN):

#### 14.1 UN-number

No dangerous good in sense of this transport regulation.

#### 14.2 UN proper shipping name

No dangerous good in sense of this transport regulation.

#### 14.3 Transport hazard class(es)

No dangerous good in sense of this transport regulation.



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC

Print date: 07.07.2021

Revision date: 17.01.2024

### 14.4 Packing group

No dangerous good in sense of this transport regulation.

### Marine transport (IMDG):

#### 14.1 UN-number

No dangerous good in sense of this transport regulation.

#### 14.2 UN proper shipping name

No dangerous good in sense of this transport regulation.

#### 14.3 Transport hazard class(es)

No dangerous good in sense of this transport regulation.

#### 14.4 Packing group

No dangerous good in sense of this transport regulation.

### Air transport (ICAO-TI/IATA-DGR):

#### 14.1 UN-number

No dangerous good in sense of this transport regulation.

#### 14.2 UN proper shipping name

No dangerous good in sense of this transport regulation.

#### 14.3 Transport hazard class(es)

No dangerous good in sense of this transport regulation.

#### 14.4 Packing group

No dangerous good in sense of this transport regulation.

#### 14.5 Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6 Special precautions for user

No dangerous good in sense of this transport regulation.



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC

Print date: 07.07.2021

Revision date: 17.01.2024

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

## SECTION 15: Regulatory information

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

<b>EU regulatory information</b>	VOC-EU	0,00%
<b>2004/42/EC:</b>	VOC-CH	0,00%

#### Information according to

**(SEVESO III) 2012/18/EU** Not subject to 2012/18/EU (SEVESO III)

#### National regulatory information:

**Employment restrictions:** Observe restrictions to employment for juvenils according to the 'juvenilework protection guideline' (94/33/EC).

#### Water contaminating

**class (D):** 1 - slightly water contaminating

### 15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

#### Abbreviations and acronyms

<b>ADR:</b>	Accord européen relatif au transport international des marchandises Dangereuses par Route (Agreement concerning the international carriage of Dangerous goods by Road)
<b>IMDG-Code:</b>	International Maritime Code for Dangerous Goods
<b>ICAO:</b>	International Civil Aviation Organisation (IATA: The International Air Transport Association)
<b>GHS:</b>	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals



## SAFETY DATA SHEET ACCORDING TO 1907 / 2006 / EC 1

Product name: mechatron LC / mechatron LCC  
Print date: 07.07.2021  
Revision date: 17.01.2024

**Relevant H and EUH  
statements (number and  
full text):**

H302 Harmful if swallowed.

H319 Causes serious eye irritation/damage

H373 May cause damage to organs through prolonged or repeated exposure.

**Further Information:**

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)