

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 17.12.2018

Version number 2

Revision: 05.04.2018

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

- **1.1 Product identifier**
- **Trade name: EDAPLAN® LA 451**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Wetting agent
Leveling agents
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MÜNZING CHEMIE GmbH
Münzingstrasse 2
74232 Abstatt, Germany
E-Mail: info@munzing.com
Tel.: +49 7131 987-100
- **Further information obtainable from:**
Product Safety Department
E-mail (MSDS): msds@munzing.com
- **1.4 Emergency telephone number:** For Chemical Emergencies: CHEMTREC: +1 703 741 5970

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 3 H226 Flammable liquid and vapour.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS05 GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**
Sodium diisotridecyl sulfosuccinate
- **Hazard statements**
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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 CENTER/doctor.
P321 Specific treatment (see on this label).

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P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** None.
- **vPvB:** None.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Sulfosuccinate in ethanol and water

· **Dangerous components:**

CAS: 55184-72-0 EINECS: 259-515-6 Reg.nr.: 01-2119970177-31	Sodium diisotridecyl sulfosuccinate ----- Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Irrit. 2, H315	50-75%
CAS: 64-17-5 EINECS: 200-578-6 Reg.nr.: 01-2119457610-43	Ethanol ----- Flam. Liq. 2, H225; Eye Irrit. 2, H319	10-20%
CAS: 27458-92-0 EINECS: 248-469-2 Reg.nr.: 01-2119488528-21	Isotridecan-1-ol ----- Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315	1-<3%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Take affected persons into fresh air and keep quiet.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Sulphur dioxide (SO₂)

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- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Keep away from ignition sources.
Wear protective equipment. Keep unprotected persons away.
- **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).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **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**
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Protect from heat.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **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**

- **Ingredients with limit values that require monitoring at the workplace:**

CAS: 64-17-5 Ethanol

WEL | Long-term value: 1920 mg/m³, 1000 ppm

· **DNELs**

CAS: 55184-72-0 Sodium diisotridecyl sulfosuccinate

Oral | consumer, long-term exposure, systemic effects | 13.39 mg/kg bw/day (human)

Dermal | worker, long-term exposure, systemic effects | 200.89 mg/kg bw/day (human)

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<i>Inhalative</i>	<i>consumer, long-term exposure, systemic effects</i>	120.54 mg/kg bw/day (human)
	<i>worker, long-term exposure, systemic effects</i>	1,416.82 mg/m ³ (human)
	<i>consumer, long-term exposure, systemic effects</i>	419.25 mg/m ³ (human)

CAS: 64-17-5 Ethanol

<i>Oral</i>	<i>consumer, long-term exposure, systemic effects</i>	87 mg/kg bw/day (human)
	<i>worker, long-term exposure, systemic effects</i>	343 mg/kg bw/day (human)
<i>Dermal</i>	<i>consumer, long-term exposure, systemic effects</i>	206 mg/kg bw/day (human)
	<i>worker, long-term exposure, systemic effects</i>	950 mg/m ³ (human)
<i>Inhalative</i>	<i>worker, long-term exposure, systemic effects</i>	1,900 mg/m ³ (human)
	<i>worker, short-term exposure, local effects</i>	114 mg/m ³ (human)
	<i>consumer, long-term exposure, systemic effects</i>	114 mg/m ³ (human)
	<i>consumer, short-term exposure, local effects</i>	950 mg/m ³ (human)

CAS: 27458-92-0 Isotridecan-1-ol

<i>Oral</i>	<i>consumer, long-term exposure, systemic effects</i>	2.1 mg/kg bw/day (human)
	<i>worker, long-term exposure, systemic effects</i>	6.94 mg/kg bw/day (human)
<i>Dermal</i>	<i>consumer, long-term exposure, systemic effects</i>	4.2 mg/kg bw/day (human)
	<i>worker, long-term exposure, systemic effects</i>	24.5 mg/m ³ (human)
<i>Inhalative</i>	<i>worker, long-term exposure, systemic effects</i>	24.5 mg/m ³ (human)
	<i>consumer, long-term exposure, systemic effects</i>	7.3 mg/m ³ (human)

· PNECs

CAS: 55184-72-0 Sodium diisotridecyl sulfosuccinate

<i>fresh water</i>	0.0015 mg/l (not specified)
<i>marine water</i>	0.00015 mg/l (not specified)
<i>aqua - intermittent release</i>	0.0196 mg/l (not specified)
<i>sediment (fresh water)</i>	38.38 mg/kg (not specified)
<i>sediment (marine water)</i>	3.838 mg/kg (not specified)
<i>sewage treatment plant</i>	1.4 mg/l (not specified)

CAS: 64-17-5 Ethanol

<i>fresh water</i>	0.96 mg/l (not specified)
<i>marine water</i>	0.79 mg/l (not specified)
<i>aqua - intermittent release</i>	2.75 mg/l (not specified)
<i>soil</i>	0.63 mg/kg (not specified)
<i>sediment (fresh water)</i>	3.6 mg/kg (not specified)
<i>sewage treatment plant</i>	580 mg/l (not specified)

CAS: 27458-92-0 Isotridecan-1-ol

<i>fresh water</i>	0.000072 mg/l (not specified)
<i>marine water</i>	0.000007 mg/l (not specified)
<i>aqua - intermittent release</i>	0.003 mg/l (not specified)
<i>soil</i>	0.314 mg/kg (not specified)
<i>sediment (fresh water)</i>	0.021 mg/kg (not specified)
<i>sediment (marine water)</i>	0.002 mg/kg (not specified)
<i>sewage treatment plant</i>	10 mg/l (not specified)

· Additional information: The lists valid during the making were used as basis.

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- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **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.
Butyl rubber, BR
Recommended thickness of the material: ≥ 0.7 mm
- **Penetration time of glove material**
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
- **Eye protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

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

Form:	Fluid
Colour:	Yellow
Odour:	Characteristic
Odour threshold:	Not determined.
- **pH-value (20 g/l) at 20 °C:** ≈ 7 (DIN ISO 976)
- **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	≈ 78 °C
- **Flash point:** ≈ 27 °C (DIN EN ISO 2719)
- **Flammability (solid, gas):** Not determined.
- **Ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.

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· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Oxidising properties	None.
· Vapour pressure:	Not determined.
· Density at 20 °C:	≈1.02 g/cm ³ (DIN EN ISO 2811-1)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic at 20 °C: Kinematic:	≈200 mPas (DIN EN ISO 3219) Not determined.
· Solvent separation test:	Not determined
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:		
CAS: 55184-72-0 Sodium diisotridecyl sulfosuccinate		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>3,500 mg/kg (rabbit)
CAS: 64-17-5 Ethanol		
Oral	LD50	3,450 mg/kg (mouse) 7,060 mg/kg (rat)
Dermal	LD50	6,300 mg/kg (rabbit) >2,000 mg/kg (rat)

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Inhalative	LC50/4h	20,000 mg/l (rat)
CAS: 27458-92-0 Isotridecan-1-ol		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	6,000 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 55184-72-0 Sodium diisotridecyl sulfosuccinate

EC50	>100 mg/l (alga) (72h) 4.9 mg/l (daphnia) (48h)
EC10	8.7 mg/l (alga) (72h)
LC50	1.96 mg/l (fish) (96h)

CAS: 64-17-5 Ethanol

EC50	6,500 mg/l (bacteria) (<i>Pseudomonas putida</i> / 16 h) >9,268 mg/l (daphnia) (<i>Daphnia magna</i> / 48 h)
LC50	>100 mg/l (daphnia) (<i>Daphnia magna</i> / 24 h) 8,140 mg/l (fish) (<i>Leuciscus idus</i> / 48 h)

CAS: 27458-92-0 Isotridecan-1-ol

EC50 (static)	0.297 mg/l (alga) (<i>Desmodesmus subspicatus</i> / 72 h (OECD 201)) 0.391 mg/l (daphnia) (<i>Daphnia magna</i> / 48 h (OECD 202))
LC50	0.55 mg/l (fish) (<i>Brachydanio rerio</i> / 96 h (OECD 203))
NOEC	0.0016-0.014 mg/l (daphnia) (<i>Daphnia magna</i> / 21 d (OECD 211))

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Behaviour in sewage processing plants:**
Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Do not release untreated into natural waters.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

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· **12.5 Results of PBT and vPvB assessment**

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

07 06 08* other still bottoms and reaction residues

· **Uncleaned packaging:**

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

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR/RID/ADN, IMDG, IATA** UN1170

· **14.2 UN proper shipping name**

· **ADR/RID/ADN** 1170 ETHANOL (ETHYL ALCOHOL), ENVIRONMENTALLY HAZARDOUS
· **IMDG** ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
· **IATA** ETHANOL

· **14.3 Transport hazard class(es)**

· **ADR/RID/ADN, IMDG**



· **Class** 3 Flammable liquids.

· **Label** 3

· **IATA**



· **Class** 3 Flammable liquids.

· **Label** 3

· **14.4 Packing group**

· **ADR/RID/ADN, IMDG, IATA** III

· **14.5 Environmental hazards:**

Product contains environmentally hazardous substances:
Sodium diisotridecyl sulfosuccinate

· **Marine pollutant:**

Symbol (fish and tree)

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· Special marking (ADR/RID/ADN):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	30
· EMS Number:	F-E,S-D
· Stowage Category	A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	5L
· Transport category	3
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning pregnant and lactating women must be observed.
Employment restrictions concerning juveniles must be observed.
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **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**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
- **Department issuing SDS:**
Product Safety Department

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E-Mail: msds@munzing.com

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

*** Data compared to the previous version altered.**

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