

# Safety data sheet

According to Regulation (EC) No. 1907/2006 (REACH)  
Date of issue: 11.02.2020 Supersedes edition of: 23.07.2019

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

### 1.1 Product identifier

Product name: Purito

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

Identified uses: Cleaner

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

Company: Otto Oehme GmbH  
Industriestraße 20  
D-90584 Allersberg Deutschland  
Tel. +49 9176 98050  
info@oehme-lorito.de

### 1.4 Emergency telephone number

GIZ Nord Poisons Centre, Göttingen Tel. +49 (0) 551 19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

*Classification (Regulation (EC) No. 1272/2008)*

Eye Irrit. 2, H319

Aquatic Chronic 3, H412

Full text of hazard statements: See under section 16.

### 2.2 Label elements

*Labelling (Regulation (EC) No. 1272/2008)*

*Hazard pictograms:*



*Signal word:*

Warning

*Hazard statements:*

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

*Precautionary statements:*

P280 Wear protective gloves/eye protection.

P337 + P313 If eye irritation persists: Get medical advice/attention.

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### 2.3 Other hazards

Not known.

## SECTION 3: Composition / information on ingredients

Solution in water.

### Hazardous components (Regulation (EC) No. 1272/2008)

Chemical name	CAS-No.	EC-No.	EC-Index-No.	Labelling according to EC-Regulation	Content
Isotridecanol, ethoxylated	69011-36-5	NLP 500-241-6		Eye Dam. 1, H318 Acute Tox. 4, H302	< 5 %
REACH Registration Number: 02-2119552461-55-0000					
Sodium etasulfate	126-92-1	204-812-8		Skin Irrit. 2 H315 Eye Dam. 1 H318	< 10 %
REACH Registration Number: 01- 2119971586-23					
Specific Conc. Limits:					
Eye Irrit. 2: 10 – < 20 %					
Eye Dam. 1: >= 20 %					
2-(2-Butoxyethoxy)ethanol	112-34-5	203-961-6	603-096-00-8	Eye Irrit. 2, H319	< 10 %
REACH Registration Number: 01-2119475104-44					
Ethanol	64-17-5	200-578-6	603-002-00-5	Flam. Liq. 2, H225 Eye Irrit. 2, H319	< 10 %
REACH Registration Number: 01-2119457610-43					
Ethyl methyl ketone	78-93-3	201-159-0	606-002-00-3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	< 0.1 %
REACH Registration Number: 01-2119457290-43					
(2-Methoxymethylethoxy)propanol	34590-94-8	252-104-2	---		< 10 %
REACH Registration Number: 01-2119450011-60					
Bis(2-ethylhexyl)maleate	142-16-5	205-524-5		STOT RE 2, H373 Aquatic Chronic 1, H410	< 1 %

Full text of hazard statements: See under section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

After inhalation: Fresh air. Call in physician if feeling unwell.

After skin contact: Wash off with plenty of water. Remove contaminated clothing. Consult a physician if skin irritations occur.

After eye contact: Rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist.

After swallowing: Make victim drink plenty of water (two glasses at most), avoid vomiting. Call in physician.

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

Irritant effects, shortness of breath, dizziness, diarrhoea, nausea, CNS disorders.

Respiratory paralysis, dermatitis, narcosis, inebriation, euphoria, vomiting.

Drying-out effect resulting in rough and chapped skin.

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

No information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Carbon dioxide, foam, dry powder.

*Unsuitable extinguishing media*

For this substance / mixture no limitations of extinguishing agents are given.

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

Contains combustible material. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at ambient temperatures. Pay attention to flashback. Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

*Further information*

Prevent fire-fighting water from entering surface water or groundwater.

## SECTION 6: Accidental release measures

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

Caution: Risk of slipping.

Do not inhale vapours/aerosols. Avoid substance contact. Use personal protective equipment as required, see section 8.2. Ensure supply of fresh air in enclosed rooms. In case of inadequate ventilation wear respiratory protection.

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## 6.2 Environmental precautions

Do not get undiluted into sewerage system.

## 6.3 Methods and material for containment and cleaning up

Take up with incombustible liquid-absorbent material. Forward for disposal. Clean up affected area.

## 6.4 Reference to other sections

Indications about waste treatment see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### *Notes for safe handling*

Ensure adequate ventilation. Avoid contact with skin and eyes. Do not inhale vapours/aerosols. Avoid generation of vapours/aerosols.

#### *Notes for prevention of fire and explosion*

Not required.

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

Store cool above 5 °C. Keep away from sun and heat. Tightly closed in a well-ventilated place.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### *2-(2-Butoxyethoxy)ethanol*

ECTLV

Name	2-(2-Butoxyethoxy)ethanol
Limit value 8 hours	10 ppm 67.5 mg/m <sup>3</sup>

Short term (< 15 min.)	15 ppm 101.2 mg/m <sup>3</sup>
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EH40 WEL

Name	2-(2-Butoxyethoxy)ethanol
Short term exposure limit (STEL)	15 ppm 101.2 mg/m <sup>3</sup>

Time weighted average (TWA)	10 ppm 67.5 mg/m <sup>3</sup>
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#### *Ethanol*

EH40 WEL

Name	Ethanol
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Time weighted average (TWA) 1000 ppm  
1920 mg/m<sup>3</sup>

*Ethyl methyl ketone*

ECTLV

Name Butan-2-one  
Limit value 8 hours 200 ppm  
600 mg/m<sup>3</sup>

Short term (< 15 min.) 300 ppm  
900 mg/m<sup>3</sup>

EH40 WEL

Name Butan-2-one  
Short term exposure limit (STEL) 300 ppm  
899 mg/m<sup>3</sup>

Time weighted average (TWA) 200 ppm  
600 mg/m<sup>3</sup>

Skin designation Can be absorbed through the skin.

*(2-Methoxymethylethoxy)propanol*

ECTLV

Name (2-Methoxymethylethoxy)propanol  
Limit value 8 hours 50 ppm  
308 mg/m<sup>3</sup>

*(2-Methoxymethylethoxy)propanol*

EH40 WEL

Name (2-Methoxymethylethoxy)propanol  
Time weighted average (TWA) 50 ppm  
308 mg/m<sup>3</sup>

**8.2 Exposure controls***Individual protection measures*

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

**Eye / face protection:**

Eye protection (EN 166).

**Hand protection:**

Material: Nitrile rubber.

Thickness: 0.1 mm

Breakthrough time: > 480 min

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374, e.g. Franz Mensch Nitrile Safe Premium.

This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

**Other protective equipment**

Acid-resistant protective clothing.

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**Respiratory protection:**

Required when vapours/aerosols are generated. Filter A2 P2 (EN 14387).

*Hygiene measures*

Change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Form:	liquid
Colour:	colourless
Odour:	perfumed
pH value	~ 11
Melting point	not specified
Boiling point	not specified
Ignition temperature	not applicable
Flash point	66 °C
Explosion limits	lower >1.3 % (Ethanol)
	upper 15 % (Ethanol)
Density (20 °C)	~ 1 g/cm <sup>3</sup>
Solubility in water	miscible

**9.2 Other information**

None.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Forms explosive mixtures with air on intense heating.

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature).

**10.3 Possibility of hazardous reactions**

Risk of explosion/exothermic reaction with:

Hydrogen peroxide, perchlorates, perchloric acid, nitric acid, mercury(II) nitrate, permanganic acid, nitriles, peroxy compounds, strong oxidizing agents, nitrosyl compounds, peroxides, sodium, potassium, halogen oxides, calcium hypochlorite, nitrogen dioxide, metallic oxides, uranium hexafluoride, iodides, chlorine, alkali metals, alkaline earth metals, alkali oxides, ethylene oxide potassium permanganate, sulfuric acid.

Risk of ignition or formation of inflammable gases or vapours with:

Halogen-halogen compounds, chromium(VI) oxide, chromyl chloride, fluorine, hydrides, oxides of phosphorus, platinum.

Violent reactions possible with: Aluminium.

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#### 10.4 Conditions to avoid

Warming.

#### 10.5 Incompatible materials

Aluminium, light metals, corrosive substances, halogenes, bases, acids, reactive chemicals.  
Rubber, various plastics.

#### 10.6 Hazardous decomposition products

See section 5.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### *Acute oral toxicity*

LD<sub>50</sub> rat: 5660 mg/kg (RTECS; 2-(2-Butoxyethoxy)ethanol)

Symptoms: Nausea, diarrhoea, shortness of breath.

LD<sub>50</sub> rat: 500 - 2000 mg/kg (OECD 423; Isotridecanol, ethoxylated)

LD<sub>50</sub> rat: 10470 mg/kg (OECD 401; Ethanol)

Symptoms: Nausea, vomiting.

LD<sub>50</sub> rat: > 5000 mg/kg (external MSDS; (2-Methoxymethylethoxy)propanol)

LD<sub>50</sub> rat: 2840 mg/kg (OECD 401; Sodium etasulfate)

##### *Acute dermal toxicity*

LD<sub>50</sub> rabbit: 2764 mg/kg (ECHA; 2-(2-Butoxyethoxy)ethanol)

LD<sub>50</sub> rat: > 2000 mg/kg (external MSDS; Ethanol)

Symptoms: Dermatitis, drying-out effect resulting in rough and chapped skin.

LD<sub>50</sub> rabbit: > 19020 mg/kg (external MSDS; (2-Methoxymethylethoxy)-propanol)

LD<sub>50</sub> rat: > 2000 mg/kg (OECD 402; Sodium etasulfate)

##### *Acute inhalation toxicity*

Symptoms: Possible damages: Mucosal irritations (external MSDS; 2-(2-Butoxyethoxy)ethanol).

LC<sub>50</sub> rat: 124.7 mg/l /4 h vapour (OECD 403; Ethanol)

Symptoms: Slight mucosal irritations, absorption.

LC<sub>50</sub> rat: No observed mortality /7 h (external MSDS; (2-Methoxymethylethoxy)propanol)

##### *Skin irritation*

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product (external MSDS; 2-(2-Butoxyethoxy)ethanol).

Rabbit: No irritation (OECD 404; Isotridecanol, ethoxylated).

Rabbit: No irritation (OECD 404; Ethanol).

Rabbit: No irritation (external MSDS; (2-Methoxymethylethoxy)propanol).

Irritation (OECD 404; Sodium etasulfate).

##### *Eye irritation*

Rabbit: Eye irritation. Causes serious eye irritation (RTECS; 2-(2-Butoxyethoxy)ethanol).

Rabbit: Eye irritation (OECD 405; Isotridecanol, ethoxylated).

Causes serious eye irritation.

Rabbit: Eye irritation (OECD 405; Ethanol).

Causes serious eye irritation.

Rabbit: Draize-test: No irritation (external MSDS; (2-Methoxymethylethoxy)propanol).

Causes serious eye irritation. (OECD 405; Sodium etasulfate).

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### *Sensitisation*

Sensitisation test (Magnusson and Kligman): Negative (IUCLID; Ethanol).  
Patch test: Human: Negative (IUCLID; (2-Methoxymethylethoxy)propanol).

### *Genotoxicity in vitro*

Ames test: Salmonella typhimurium: Negative (National Toxicology Program; 2-(2-Butoxyethoxy)ethanol).  
Ames test: Salmonella typhimurium: Negative (National Toxicology Program; Ethanol).  
Mutagenicity (mammal cell test): Mouse lymphoma test: Negative (OECD 476; Ethanol).  
Ames test: Negative (IUCLID; (2-Methoxymethylethoxy)propanol).  
Mutagenicity: Ames-test: Negative (external MSDS; Sodium etasulfate).

### *Specific target organ toxicity – single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

### *Specific target organ toxicity – repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### *Aspiration hazard*

No aspiration toxicity classification.

## **11.2 Further information**

Chronic intoxication: Systemic effects: CNS disorders, dizziness. Damage to: Liver, kidney.  
Systemic effects: Euphoria.  
After absorption of large quantities: Dizziness, inebriation, narcosis, respiratory paralysis.

Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### *Toxicity to fish*

Lepomis macrochirus LC<sub>50</sub>: 1300 mg/l /48 h (OECD 203; ECHA; 2-(2-Butoxyethoxy)ethanol)  
Leuciscus idus LC<sub>50</sub>: 1-10 mg/l /96 h (external MSDS; Isotridecanol, ethoxylated)  
Leuciscus idus LC<sub>50</sub>: 8140 mg/l /48 h (IUCLID; Ethanol)  
Poecilia reticulata LC<sub>50</sub>: > 1000 mg/l /96 h (OECD 203; (2-Methoxymethylethoxy)propanol)  
LC<sub>50</sub>: > 100 mg/l (OECD 203; Sodium etasulfate)

#### *Toxicity to daphnia and other aquatic invertebrates*

Daphnia magna: EC<sub>50</sub>: >100 mg/l /48 h (OECD 202; 2-(2-Butoxyethoxy)ethanol)  
Aaquatic invertebrates: EC<sub>50</sub>: 1-10 mg/l /48 h (external MSDS; Isotridecanol, ethoxylated)  
Daphnia magna: EC<sub>50</sub>: 9268-14221 mg/l /48 h (IUCLID; Ethanol)  
Entosiphon sulcatum: EC<sub>5</sub>: 65 mg/l /72 h (maximum permissible toxic concentration; external MSDS; Ethanol)  
Daphnia magna: EC<sub>50</sub>: 1919 mg/l /48 h (external MSDS; (2-Methoxymethylethoxy)propanol)  
Daphnia magna: EC<sub>50</sub>: > 100 mg/l /48 h (92/69/EEG, C.2; Sodium etasulfate)

#### *Toxicity to algae*

EC<sub>50</sub>: 1-10 mg/l /72 h (external MSDS; Isotridecanol, ethoxylated)  
Scenedesmus quadricauda: IC<sub>5</sub>: 5000 mg/l / 7 d (maximum permissible toxic concentration; external MSDS; Ethanol)  
Pseudokirchneriella subcapitata EC<sub>50</sub>: > 969 mg/l /96 h (OECD 201; (2-Methoxymethylethoxy)-



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propanol)

Scenedesmus subspicatus: EC<sub>50</sub>: > 100 mg/l /72 h (92/69/ EEG, C.3; Sodium etasulfate)

Scenedesmus subspicatus: EC<sub>10</sub>: > 100 mg/l /72 h (92/69/ EEG, C.3; Sodium etasulfate)

#### *Toxicity to bacteria*

Activated sludge: EC<sub>10</sub>: >10000 mg/l /17 h (DIN 38412 (8); Isotridecanol, ethoxylated)

Pseudomonas putida EC<sub>5</sub>: 6500 mg/l /16 h (maximum permissible toxic concentration; IUCLID; Ethanol)

Pseudomonas putida EC<sub>10</sub>: 4168 mg/l /18 h (IUCLID; (2-Methoxymethylethoxy)propanol)

Activated sludge: EC<sub>50</sub>: > 100 mg/l /3 h (OECD 209; Sodium etasulfate)

## **12.2 Persistence and degradability**

### *Biodegradability*

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

Data to support this assertion are held at the disposal of the competent authorities of the member states and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Biodegradation: 85 % /28 d (OECD 301 C; 2-(2-Butoxyethoxy)ethanol)

Readily biodegradable (2-(2-Butoxyethoxy)ethanol)

Biodegradation: >60 % / 28 d (OECD 301B; Isotridecanol, ethoxylated)

Readily biodegradable (Isotridecanol, ethoxylated)

Biodegradation: 94 % (OECD 301E; Ethanol)

Readily biodegradable (Ethanol)

Biodegradation: 75 % / 28 d (OECD 301; (2-Methoxymethylethoxy)propanol)

Readily biodegradable ((2-Methoxymethylethoxy)propanol)

Biodegradation: > 70 % /28 d (OECD 301; Sodium etasulfate)

Readily biodegradable (Sodium etasulfate)

### *Biochemical oxygen demand (BOD)*

930-1670 mg/g /5 d (external MSDS; Ethanol)

### *Theoretical oxygen demand (ThOD)*

2100 mg/g (external MSDS; Ethanol)

### *Ratio COD / ThBOD*

96 % (ECHA; 2-(2-Butoxyethoxy)ethanol)

90 % (external MSDS; Ethanol)

## **12.3 Bioaccumulative potential**

Partition coefficient: n-octanol / water: log P<sub>OW</sub>: 0.56 (25 °C) (external MSDS; 2-(2-Butoxyethoxy)ethanol).

No bioaccumulation is to be expected (2-(2-Butoxyethoxy)ethanol).

No bioaccumulation is to be expected (external MSDS; Isotridecanol, ethoxylated).

Partition coefficient: n-octanol / water: log P<sub>OW</sub>: -0.31 (external MSDS; Ethanol).

No bioaccumulation is to be expected (Ethanol).

Partition coefficient: n-octanol / water: log P<sub>OW</sub>: < 0,001 (25 °C) (OECD 107; (2-Methoxymethylethoxy)propanol).

No bioaccumulation is to be expected (external MSDS; (2-Methoxymethylethoxy)propanol).

No bioaccumulation is to be expected (Sodium etasulfate).

## **12.4 Mobility in soil**

No information available.

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**12.5 Results of PBT and vPvB assessment**

PBT / vPvB assessment not available as chemical safety assessment not required / not conducted.

**12.6 Other adverse effects**

*Additional ecological information:*

COD: 2.1 g/g (external MSDS; Isotridecanol, ethoxylated).

Do not allow to enter waters, waste water, or soil!

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

*Product:*

Chemicals must be disposed of in compliance with the respective national regulations.

Code of the waste

200129\*

070601\*

Name according to directive 2000/532/EC:

detergents containing dangerous substances.

aqueous washing liquids and mother liquors.

*Packaging:*

Product packaging must be disposed of in compliance with the country-specific regulations or must be to a packaging return system.

**SECTION 14: Transport information**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture**

*EU regulations*

Ingredients according to Regulation (EC) on detergents No. 648/2004:

Non-ionic surfactants: Less than 5 %

Anionic surfactants: Less than 5 %

Phosphates: Less than 5 %

Benzisothiazolinone, Methylisothiazolinone

Perfumes. Linalool, Limonene, Hexyl Cinnamal, Geraniol, Hydroxyisohexyl 3-Cyclohexene

Carboxaldehyde.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out.

**SECTION 16: Other information**

*Reason for alteration:*

SECTION 13: Disposal considerations

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*Full text of hazard statements referred to under sections 2 and 3:*

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs (kidney) through prolonged or repeated exposure (oral).

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.*