

## Safety Data Sheet acc. to OSHA HCS

Printing date 04/17/2018

Reviewed on 04/17/2018

### 1 Identification

- **Product identifier**
- **Trade name: Purasol**
- **Application of the substance / the mixture**  
Dry-cleaning  
Spotting agent, stain remover
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SEITZ GmbH  
Gutenbergstrasse 1 - 3  
65830 Kriftel / Germany  
Tel. + 49(0) 6192-9948-0  
Fax + 49(0) 6192-9948-99  
order@seitz24.com  
www.seitz24.com
- **Information department:**  
CHEM-TEL Inc.  
1305 North Florida Ave  
Tampa Florida 33602
- **Emergency telephone number:** 1-800-255-3924 (24-hour Service)

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**



GHS02 GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**

cyclohexanone  
acetic acid n-butylester  
solvent naphtha, petroleum, light arom.

· **Hazard statements**

H226 Flammable liquid and vapor.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P261 Avoid breathing mist/vapours/spray.  
P280 Wear protective gloves / eye protection.  
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.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **CAS-No. Components:**

CAS-No.	Components:	
CAS: 123-86-4	acetic acid n-butylester	50 – 100%
CAS: 108-94-1	cyclohexanone	< 15%
CAS: 64742-95-6	solvent naphtha, petroleum, light arom.	< 10%

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

### 4 First-aid measures

· **Description of first aid measures**

· **General information**

Remove casualties from exposure.  
Keep unprotected persons away.  
Immediately remove any clothing soiled by the product.

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- **After inhalation**  
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.  
If skin irritation continues, consult a doctor.
- **After eye contact**  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; immediately call for medical help.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed**  
Eye damage  
Skin irritation  
Headache  
Vertigo  
Nausea  
Unconsciousness
- **Indication of any immediate medical attention and special treatment needed**  
Symptomatic treatment

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.
- **Additional information**  
Cool endangered receptacles with water spray.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Avoid contact with eyes and skin.  
Keep away from ignition sources  
Ensure adequate ventilation  
Do not breathe gases/ vapours.

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- **Environmental precautions:** 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)  
Send for recovery or disposal in suitable receptacles.
- **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.

### 7 Handling and storage

- **Handling**
- **Precautions for safe handling**  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Avoid contact with eyes and skin.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Formation of explosive vapour- / air mixture possible.  
Protect against electrostatic charges.  
Flammable gas-air mixtures may be formed in empty receptacles.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original receptacle.  
Prevent any seepage into the ground.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Do not store together with alkalis (caustic solutions).  
Store away from oxidizing agents.
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Store in cool, dry conditions in well sealed receptacles.  
Store receptacle in a well ventilated area.  
Protect from frost.  
Time of storage: max. 24 month
- **Specific end use(s)** Dry-cleaning

### 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.

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

**CAS: 123-86-4 acetic acid n-butylester**

PEL	Long-term value: 710 mg/m <sup>3</sup> , 150 ppm
REL	Long-term value: 950 mg/m <sup>3</sup> , 200 ppm
TLV	Short-term value: 712 mg/m <sup>3</sup> , 150 ppm Long-term value: 238 mg/m <sup>3</sup> , 50 ppm

**CAS: 108-94-1 cyclohexanone**

PEL	Long-term value: 200 mg/m <sup>3</sup> , 50 ppm
REL	Long-term value: 100 mg/m <sup>3</sup> , 25 ppm Skin
TLV	Long-term value: 50 mg/m <sup>3</sup> , 20 ppm Skin

**· Ingredients with biological limit values:**

**CAS: 108-94-1 cyclohexanone**

BEI	80 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 1.2-Cyclohexanediol with hydrolysis (nonspecific, semi-quantitative)
	8 mg/L Medium: urine Time: end of shift Parameter: Cyclohexanol with hydrolysis (nonspecific, semi-quantitative)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Do not eat, drink, smoke or sniff while working.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

· **Breathing equipment:**

Ensure good ventilation/exhaustion at the workplace.

Use suitable respiratory protective device in case of insufficient ventilation (exceeding the workplace limit values, formation of aerosols).

· **Protection of hands:**

Solvent resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

PE/EVAL/PE

Butyl rubber, BR

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

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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:** Tightly sealed goggles.
- **Body protection:** Solvent resistant protective clothing

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Color:	Colorless
· <b>Odor:</b>	Solvent-like
· <b>Odor threshold:</b>	No further relevant information available.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined

· **Flash point:** 30 °C (86 °F) (ASTM D93 c.c.)

· **Flammability (solid, gaseous)** No further relevant information available.

· **Ignition temperature:** Not determined.

· **Decomposition temperature:** No further relevant information available.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:	No further relevant information available.
Upper:	No further relevant information available.

· **Oxidizing properties** No further relevant information available.

· **Vapor pressure:** No further relevant information available.

· <b>Density at 20 °C (68 °F):</b>	~ 0,89 g/cm <sup>3</sup> (ISO 2811)
· <b>Relative density</b>	No further relevant information available.
· <b>Vapor density</b>	No further relevant information available.
· <b>Evaporation rate</b>	No further relevant information available.

· **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix

· **Partition coefficient (n-octanol/water):** No further relevant information available.

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- **Viscosity:**
  - dynamic:** No further relevant information available.
  - kinematic:** No further relevant information available.
- **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**  
Stable under normal ambient conditions.  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Forms flammable gases / fumes
- **Conditions to avoid**  
Protect from heat and direct sunlight.  
Keep away from ignition sources
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

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

- **LD/LC50 values that are relevant for classification:**

#### ATE (Acute Toxicity Estimate)

Oral	LD50	> 12,427 mg/kg (rat)
Dermal	LD50	> 8,181 mg/kg
Inhalative	LC50 (4h)	110 mg/l

#### CAS: 123-86-4 acetic acid n-butylester

Oral	LD50	10,760 mg/kg (rat) (OECD 423)
Dermal	LD50	> 14,112 mg/kg (rabbit) (OECD 402)

#### CAS: 108-94-1 cyclohexanone

Oral	LD50	> 1,890 mg/kg (rat)
Dermal	LD50	1,100 mg/kg (ATE)
Inhalative	LC50 (4h)	11 mg/l (ATE)

#### CAS: 64742-95-6 solvent naphtha, petroleum, light arom.

Oral	LD50	3,592 mg/kg (rat) (OECD 401)
Dermal	LD50	> 3,160 mg/kg (rabbit) (OECD 402)

- **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.

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- **Additional toxicological information:**  
Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

CAS: 108-94-1 cyclohexanone	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **CMR effects (carcinogenity, 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.

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

Based on available data, the classification criteria are not met.

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

Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

**CAS: 123-86-4 acetic acid n-butylester**

EC50 647.7 mg/l (Aquatic plants, algae) (Desmodesmus subspicatus; 72h)

44 mg/l (Aquatic invertebrates) (Daphnia magna; 48h)

LC50 18 mg/l (Fish) (Pimephales promelas; 96h; OECD 203)

NOEC 200 mg/l (Aquatic plants, algae) (Desmodesmus subspicatus)

**CAS: 108-94-1 cyclohexanone**

EC50 820 mg/l (Aquatic invertebrates) (Daphnia magna; 24 h)

LC50 527 mg/l (Fish) (Pimephales promelas; 96 h)

EC5 192 mg/l (Aquatic plants, algae) (Scenedesmus quadricauda; 192 h)

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

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### 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Contaminated adsorbent, soil, water must be disposed of in a permitted hazardous waste management facility. Recovered products may be reused, reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, The Clean Water Act, RCRA, as well as applicable Federal, State, and local Regulations regarding disposal.

### 14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN1993

· **UN proper shipping name**

· **DOT**

Flammable liquids, n.o.s. (Butyl acetates, solvent naphtha, petroleum, light arom.)

· **ADR**

1993 Flammable liquids, n.o.s. (Butyl acetates, solvent naphtha, petroleum, light arom.)

· **IMDG, IATA**

FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, Solvent naphtha (petroleum), light arom.)

· **Transport hazard class(es)**

· **DOT**



· **Class**

3 Flammable liquids

· **Label**

3

· **ADR**



· **Class**

3 (F1) Flammable liquids

· **Label**

3

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· **IMDG, IATA**



· **Class** 3 Flammable liquids  
 · **Label** 3

· **Packing group**  
 · **DOT, ADR, IMDG, IATA** III

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Warning: Flammable liquids  
 · **Danger code (Kemler):** 30  
 · **EMS Number:** F-E, S-E  
 · **Stowage Category** A

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**  
 · **Quantity limitations** On passenger aircraft/rail: 60 L  
 On cargo aircraft only: 220 L

· **ADR**  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

· **IMDG**  
 · **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 1993 FLAMMABLE LIQUIDS, N.O.S. (BUTYL ACETATES, SOLVENT NAPHTHA, PETROLEUM, LIGHT AROM.), 3, III

### 15 Regulatory information

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (specific toxic chemical listings):**

None of the ingredients is listed.

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· **TSCA (Toxic Substances Control Act):**

All ingredients are 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.

· **New Jersey Right-to-Know List:**

CAS: 123-86-4 | acetic acid n-butylester

CAS: 108-94-1 | cyclohexanone

· **New Jersey Special Hazardous Substance List:**

CAS: 123-86-4 | acetic acid n-butylester

F3

· **Pennsylvania Right-to-Know List:**

CAS: 123-86-4 | acetic acid n-butylester

CAS: 108-94-1 | cyclohexanone

· **Pennsylvania Special Hazardous Substance List:**

CAS: 123-86-4 | acetic acid n-butylester

E

CAS: 108-94-1 | cyclohexanone

E

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

CAS: 108-94-1 | cyclohexanone

A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **RCRA (Resource Conservation and Recovery Act)**

CAS: 108-94-1 | cyclohexanone

U057

· **National regulations**

· **Other regulations, limitations and prohibitive regulations**

· **Please note:**

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyers responsibility to ensure that its activities comply with Federal, State or provincial, and local laws. The following specific information is made for the purpose of complying with numerous laws and regulations.

· **Other information:** The product has been designed for professional use only.

US

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### 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.

• **Date of preparation / last revision** 04/17/2018 / 4

• **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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