

Printing date 03/22/2004

Reviewed on 03/22/2004

1 Identification of substance:

- **Product details:**
- **Trade name: Purasol**
- **Application of the substance / the preparation** Drycleaning / Laundry
- **Manufacturer/Supplier:**
SEITZ GmbH
Gutenbergstrasse 3
65830 Kriftel/ Germany
seitz@seitz24.com
www.seitz24.com
- **Information department:**
CHEM-TEL Inc.
1305 North Florida Ave
Tampa Florida 33602
- **Emergency information:** 1-800-255-3924

2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with non-hazardous ingredients.

CAS-No.	Components:	
123-86-4	acetic acid n-butyl ester	50 -100%
108-10-1	4-methyl-2-pentanone	10 - 20%

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

3 Hazards identification

- **Hazard description:** Flammable liquid
- **Information pertaining to particular dangers for man and environment**
Has a narcotizing effect.
R 10 Flammable.
R 67 Vapours may cause drowsiness and dizziness
- **Classification system**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0-4)**



Health = 2
Fire = 3
Reactivity = 0

4 First aid measures

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

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- 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**
- **The following symptoms may occur:**
 - Headache
 - Drowsiness
 - Dizziness
 - Nausea
 - Unconsciousness

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, 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 caused by the material, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide (CO, CO₂)
In certain fire conditions, traces of other toxic gases cannot be excluded.
- **Protective equipment:**
Wear self-contained respiratory protective device.
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.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources
Ensure adequate ventilation
Avoid contact with eyes and skin.
Do not breathe gases / vapors.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.

7 Handling and storage

- **Handling**
- **Information 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).
- **Information about protection against explosions and fires:**
Protect from direct sun exposure and temperatures over 40°C.
Keep ignition sources away - Do not smoke.

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Formation of explosive vapor-/ air mixture possible.
Protect against electrostatic charges.
Flammable gas-air mixtures may be formed in empty receptacles.

- **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.
Store away from oxidizing agents.
Do not store together with acids.
Do not store together with alkalis (caustic solutions).

- **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from frost.
Time of storage: max. 12 month

8 Exposure controls and personal protection

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

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

123-86-4 acetic acid n-butyl ester

PEL	710 mg/m ³ , 150 ppm
REL	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 710 mg/m ³ , 150 ppm
TLV	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 713 mg/m ³ , 150 ppm

108-10-1 4-methyl-2-pentanone

PEL	410 mg/m ³ , 100 ppm
REL	Short-term value: 300 mg/m ³ , 75 ppm Long-term value: 205 mg/m ³ , 50 ppm
TLV	Short-term value: 307 mg/m ³ , 75 ppm Long-term value: 205 mg/m ³ , 50 ppm BEI

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

- **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 / vapors / aerosols.

- **Breathing equipment:**

Not necessary if room is well-ventilated.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**

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

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- **Material of gloves**
Nitrile rubber, NBR
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:** Tightly sealed goggles.
- **Body protection:** Solvent resistant protective clothing

9 Physical and chemical properties:

· General Information

Form:	Fluid
Color:	Colorless
Odor:	Solvent-like

· Change in condition

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

· **Flash point:** 24°C (75°F) (ASTM D 93c.c)

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

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

· **Density at 20°C (68°F):** 0.860 - 0.870 g/cm³ (ISO 2810)

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

· **pH-value:** Not applicable

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Dangerous reactions**
Reacts with acids, alkalis and oxidizing agents
Forms flammable gases / vapors.
- **Dangerous products of decomposition:** None if used as directed.

11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

123-86-4 acetic acid n-butyl ester

Oral	LD50	> 4700 mg/kg (rat)
Dermal	LD50	> 5000 mg/kg (rabbit)
Inhalative	LC50/4 h	>21.0 mg/l (rat)

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108-10-1 4-methyl-2-pentanone

Oral	LD50	2100 mg/kg (rat)
Dermal	LD50	16000 mg/kg (rab)
Inhalative	LC50/4 h	8.3-16.6 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** Irritating effects possible
- **on the eye:** Irritating effects possible
- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

12 Ecological information:

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
At present there are no ecotoxicological assessments.

13 Waste Disposal Method

- **Product and uncleaned packagings:**

- **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

- **DOT regulations:**



- **Hazard class:** 3
- **Identification number:** UN1993
- **Packing group:** III
- **Proper shipping name (technical name):** FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, METHYL ISOBUTYL KETONE)
- **Label:** 3

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 (F1) Flammable liquids
- **Danger code (Kemler):** 30
- **UN-Number:** 1993

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- **Packaging group:** III
- **Description of goods:** 1993 FLAMMABLE LIQUID, N.O.S., special provision 640E (BUTYL ACETATES, METHYL ISOBUTYL KETONE)

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1993
- **Label:** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Propper shipping name:** FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, METHYL ISOBUTYL KETONE)

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1993
- **Label:** 3
- **Packaging group:** III
- **Propper shipping name:** FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, METHYL ISOBUTYL KETONE)

15 Regulatory information (Not meant to be all-inclusive/selected regulations represented)

- **Product related hazard informations:**
The product has been marked in accordance with national laws.
Observe the general safety regulations when handling chemicals
- **Risk phrases:**
10 Flammable.
67 Vapours may cause drowsiness and dizziness
- **Safety phrases:**
2 Keep out of the reach of children.
20 When using do not eat or drink.
23 Do not breathe vapour.
24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
45 In case of accident or if you feel unwell, seek medical advice immediately.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.
- **National regulations**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
The product has been designed for professional use only.

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acc. to ISO/DIS 11014

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· **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 their 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.

· **U.S. Regulations**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

108-10-1 | 4-methyl-2-pentanone

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

All ingredients are listed.

· **California proposition 65:**

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **Prop 65 - Chemicals known to cause reproductive toxicity**

None of the ingredients is listed.

· **State right-to-know**

The following product component(s)is/are cited on certain State lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

CAS-No.:	Chemical name:	LIST:
123-86-4	acetic acid n-butylester	NY/PA-E
108-10-1	4-methyl-2-pentanone	NY/PA-E

· **OSHA hazard communication standard:**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

· **Comprehensive Environmental Response Compensation and Liability Act (CERCLA, or Superfund):**

This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA, which may require reporting of releases:

CAS-No.:	Chemical name:
123-86-4	acetic acid n-butylester
108-10-1	4-methyl-2-pentanone

· **Canadian regulations**

· **WHMIS information:**

The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

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B2 - Flammable liquid

- **CPR statement:**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

- **Hazardous products act information:**

This produkt contains the following ingredient(s) which are Controlled Products and/or on the Ingredients Disclosure List (Canadian HPA section 13 and 14):

- **Canadian Ingredient disclosure list**

- **Limit 0,1%**

None of the ingredients is listed.

- **Limit 1%**

123-86-4	acetic acid n-butyl ester
108-10-1	4-methyl-2-pentanone

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.

- **Contact:** Dr. Ralf Döring

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

USA