

Printing date 03.11.2005

Reviewed on 22.02.2005

1 Identification of substance:

· **Product details:**

· **Trade name:** **Cytoseal 60**

· **Article number:** 8310-4 118 ml

· **Application of the substance / the preparation** Preparation

· **Manufacturer/Supplier:**

MICROM INTERNATIONAL GmbH

Robert-Bosch-Str. 49

D-69190 Walldorf

· **Informing department:** Product management

· **Emergency information:**

Giftinformationszentrale Mainz

Tel.: 0049 (0)6131 - 19240





Fax : 0049 (0)6131 - 232468

2 Composition/Data on components:

· **Chemical characterization**

· **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

CAS: 108-88-3 EINECS: 203-625-9	toluene	 Xn,  F; R 11-38-48/20-63-65-67	50-100%
CAS: 85-68-7 EINECS: 201-622-7	BBP	 T,  N; R 61-62-50/53	2.5-10%

· **Additional information**

see section 8

For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard designation:**



T Toxic

F Highly flammable

N Dangerous for the environment

· **Information pertaining to particular dangers for man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Has a narcotizing effect.

R 61 May cause harm to the unborn child.

R 11 Highly flammable.

R 38 Irritating to skin.

R 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R 62 Possible risk of impaired fertility.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 63 Possible risk of harm to the unborn child.

R 67 Vapours may cause drowsiness and dizziness.

4 First aid measures

· **General information**

Take affected persons into the open air.

Keep warm, position comfortably and cover well.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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- **After inhalation**
*In case of unconsciousness bring patient into stable side position for transport.
Seek immediate medical advice.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.*
- **After skin contact**
*Instantly rinse with water.
If skin irritation continues, consult a doctor.*
- **After eye contact** *Rinse opened eye for several minutes under running water. Then consult doctor.*
- **After swallowing** *Instantly call for doctor.*
- **Information for doctor** *No particular measures are known - treat according to symptoms.*
- **The following symptoms may occur:**
*Headache
Dazed
Sickness*
- **Danger** *Condition may deteriorate with alcohol consumption.*

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** *Water with a full water jet.*
- **Protective equipment:** *Put on breathing apparatus.*

6 Accidental release measures

- **Person-related safety precautions:**
*Keep away from ignition sources
Wear protective clothing.*
- **Measures for environmental protection:** *Prevent material from reaching sewage system, holes and cellars.*
- **Measures for cleaning/collecting:**
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.*
- **Additional information:** *Clean the accident area carefully.*

7 Handling and storage

- **Handling**
- **Information for safe handling:**
*Do not use for cleaning purposes.
The usual precautionary measures for handling chemicals must be observed.
Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.*
- **Information about protection against explosions and fires:**
*Fumes can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.*
- **Storage**
- **Requirements to be met by storerooms and containers:**
*Store only in the original container.
Provide solvent resistant, sealed floor.
Store in cool location.*
- **Information about storage in one common storage facility:** *Store away from oxidizing agents.*
- **Further information about storage conditions:**
Store container in a well ventilated position.

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Keep container tightly sealed.
 Store in cool, dry conditions in well sealed containers.

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:**

108-88-3 toluene (50-100%)

OES (Great Britain)	Short-term value: 574 mg/m ³ , 150 ppm
	Long-term value: 191 mg/m ³ , 50 ppm
	Sk

85-68-7 BBP (2.5-10%)

OES (Great Britain)	Long-term value: 5 mg/m ³
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· **Additional information:** The lists that were valid during the compilation were used as basis.

· **Personal protective equipment**

· **General protective and hygienic measures**

Do not eat, drink or smoke while working.

Keep away from foodstuffs, beverages and food.

Wash hands during breaks and at the end of the work.

· **Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· **Recommended filter device for short term use:**



Filter AX

· **Protection of hands:**

Only use chemical-protective gloves with CE-labelling of category III.

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

Preventive skin protection by use of skin-protecting agents is recommended.

· **Material of gloves**

Fluorocarbon rubber (Viton)

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

· **As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR

· **Not suitable are gloves made of the following materials:**

Leather gloves

Strong gloves

· **Eye protection:**



Safety glasses recommended during refilling.

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· **Body protection:** Protective work clothing.**9 Physical and chemical properties:**· **General Information**

Form: Fluid
Colour: Colourless
Odour: Aromatic

· **Change in condition**

Melting point/Melting range: Not determined
Boiling point/Boiling range: 110°C

· **Flash point:** 4°C (DIN 53213)· **Ignition temperature:** 435°C· **Self-inflammability:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.· **Critical values for explosion:**

Lower: 1.1 Vol %
Upper: 7.0 Vol %

· **Vapour pressure at 20°C:** 5 hPa· **Density** Not determined· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix

10 Stability and reactivity· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.· **Materials to be avoided:**

strong oxidizing agents
acids
Alkali

· **Dangerous reactions**

Forms explosive gas mixture with air
Reacts with acids, alkalis and oxidizing agents

· **Dangerous products of decomposition:**

in the event of fire:
Poisonous gases/vapours
Corrosive gases/vapours

11 Toxicological information· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:****108-88-3 toluene**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rab)
Inhalative	LC50/4 h	5320 mg/l (mus)

85-68-7 BBP

Oral	LD50	2330 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** irritative effect possible
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**
 Toluene has an irritating effect on mucous membranes, is mildly irritating to the skin, removes skin oils and has a narcotic effect.
 Pneumonia/inflammation of the lungs is possible if the lung tissue is directly affected.
 Damage of the kidneys and bone marrow has been documented.
 The risk of embryo damage/injury cannot be discounted even if the MAK (maximum workplace concentration) and BAT (biological material tolerance) values are adhered to.
 The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
 reproductive toxicity Cat. 2; Cat. 3
 Harmful
 Irritant

12 Ecological information:

- **Ecotoxicological effects:** Not determined

 · **Aquatic toxicity:**
85-68-7 BBP

EC50	>3.27 mg/l (bluegill)
LC50	1.1 mg/l (fish)
	1.7 mg/l (daphnia)

- **Remark:** Toxic for fish
- **General notes:**
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
 Do not allow product to reach ground water, water bodies or sewage system.
 Danger to drinking water if even small quantities leak into soil.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms

13 Disposal considerations

- **Product:**
- **Recommendation** Must be specially treated under adherence to official regulations.

 · **European waste catalogue**

18 00 00	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)
18 02 00	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 05	chemicals consisting of or containing dangerous substances

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· Land transport ADR/RID (cross-border)



- ADR/RID-GGVS/E Class: 3
- Kemler Number: 33
- UN-Number: 1866
- Packaging group: II
- Label: 3
- Designation of goods: 1866 RESIN SOLUTION, special provision 640D

· Maritime transport IMDG:



- IMDG Class: 3
- UN Number: 1866
- Label: 3
- Packaging group: II
- EMS Number: F-E,S-E
- Marine pollutant: No
- Correct technical name: RESIN SOLUTION

· Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 3
- UN/ID Number: 1866
- Label: 3
- Packaging group: II
- Correct technical name: RESIN SOLUTION

15 Regulatory information

· Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· Code letter and hazard designation of product:



T Toxic
F Highly flammable
N Dangerous for the environment

· Hazard-determining components of labelling:

toluene
BBP

· Risk phrases:

- 61 May cause harm to the unborn child.
- 11 Highly flammable.
- 38 Irritating to skin.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- 62 Possible risk of impaired fertility.

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51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

63 Possible risk of harm to the unborn child.

67 Vapours may cause drowsiness and dizziness.

· Safety phrases:

53 Avoid exposure - obtain special instructions before use.

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

33 Take precautionary measures against static discharges.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

57 Use appropriate container to avoid environmental contamination.

60 This material and its container must be disposed of as hazardous waste.

· National regulations**· Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

Employment restrictions concerning women of child-bearing age must be observed.

· Technical instructions (air):

Class	Share in %
II	50-100

· VOC EU % 63.98 %**· VOC CH %** 63.98 %**· Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.**16 Other information:**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Changes made since last issue dated 29.07.2003 at the following points: *

· Relevant R-phrases

11 Highly flammable.

38 Irritating to skin.

48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

61 May cause harm to the unborn child.

62 Possible risk of impaired fertility.

63 Possible risk of harm to the unborn child.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

· Department issuing data specification sheet:

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