

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

Printing date 20.03.2012

Revision: 20.03.2012

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

- **Product identifier**

- **Trade name:** *Astro Clean*

- **Relevant identified uses of the substance or mixture and uses advised against**

- **Application of the substance / the preparation:** *Disinfectant*

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

*Hager & Werken GmbH&Co.KG  
Ackerstrasse 1  
47269 Duisburg*

*Tel.: (+49)203/99269-0*

*Fax.:(+49)203/299283*

- **Further information obtainable from:** *Abteilung Produktsicherheit*

- **Emergency telephone number:**

*Hager & Werken GmbH & Co. KG*

*Tel.: (+49) 203 / 99 269-0*

*Mo. - Fr. / Monday - Friday: 9:00 - 16:00*

*Giftinformationszentrum Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein ( GIZ Nord ),*

*Georg August Universität Göttingen, Zentrum Pharmakologie und Toxikologie,*

*Robert Koch Straße 40,*

*37075 Göttingen*

*Tel.: 0551/192 40*

*Fax: 0551/383 1881*

## 2 Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



*GHS02 flame*

*Flam. Liq. 3 H226 Flammable liquid and vapour.*

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

*R10: Flammable.*

- **Information concerning particular hazards for human 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.*

- **Classification system:**

*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*

- **Label elements**

- **Labelling according to EU guidelines:**

*The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.*

- **Risk phrases:**

*10 Flammable.*

- **Safety phrases:**

*2 Keep out of the reach of children.*

*16 Keep away from sources of ignition - No smoking.*

*23 Do not breathe vapour/spray.*

*26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.*

*35 This material and its container must be disposed of in a safe way.*

*46 If swallowed, seek medical advice immediately and show this container or label.*

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- 51 Use only in well-ventilated areas.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5	ethanol	 <b>F R11</b>  <b>Flam. Liq. 2, H225</b>	25-50%
EINECS: 200-578-6			
Index number: 603-002-00-5			

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

### 4 First aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Inform doctor. Do not give milk or fatty oils.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
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, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.

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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Do not inhale gases / fumes / aerosols.
- **Respiratory protection:**  
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 self-contained respiratory protective device.
- **Protection of hands:** Not required.
- **Material of gloves**  
Nitrile rubber, NBR  
Natural rubber, NR  
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 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.
- **Eye protection:**  
Goggles recommended during refilling



Tightly sealed goggles

- **Body protection:** Protective work clothing

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### 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Fluid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value at 20°C:** 7

· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	85°C

· **Flash point:** 21 - 55°C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 425°C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

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

· **Explosion limits:**

· <b>Lower:</b>	3,5 Vol %
· <b>Upper:</b>	15,0 Vol %

· **Vapour pressure at 20°C:** 59 hPa

· <b>Density at 20°C:</b>	0,93 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

· **Segregation coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.

· **Solvent content:**

· <b>Organic solvents:</b>	44,4 %
· <b>Water:</b>	55,5 %
· <b>VOC (EC)</b>	44,37 %

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

### 10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- |                                  |   |
|----------------------------------|---|
| · <b>UN-Number</b>               |   |
| · <b>ADR, IMDG, IATA</b>         | UN1987  |
| · <b>UN proper shipping name</b> |   |
| · <b>ADR</b>                     | 1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), didecyldimethylammonium chloride) |
| · <b>IMDG</b>                    | ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), didecyldimethylammonium chloride)      |
| · <b>IATA</b>                    | ALCOHOLS, N.O.S. (ETHANOL, didecyldimethylammonium chloride)                      |

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· **Transport hazard class(es)**· **ADR**· **Class** 3 (F1) Flammable liquids.· **Label** 3· **IMDG, IATA**· **Class** 3 Flammable liquids.· **Label** 3· **Packing group**· **ADR, IMDG, IATA** III· **Environmental hazards:**· **Marine pollutant:** No· **Special precautions for user** Warning: Flammable liquids.· **Danger code (Kemler):** 33· **EMS Number:** F-E,S-D· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.· **Transport/Additional information:**· **ADR**· **Tunnel restriction code** D/E· **UN "Model Regulation":** UN1987, ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), didecyldimethylammonium chloride), 3, III

### 15 Regulatory information

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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.

R11 Highly flammable.

· **Department issuing MSDS:** Abteilung Produktsicherheit· **Contact:** Herr Dr. Deppe· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

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

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*IATA: International Air Transport Association*  
*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*  
*VOC: Volatile Organic Compounds (USA, EU)*

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