

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2019

Version number 7

Revision: 06.06.2019

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

1.1 Product identifier

- Trade name: **Crystal Clean**
- Article number: 10955, 10956, 10907

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

- Application of the substance / the mixture: No further relevant information available.
- Cleaning agent/ Cleaner

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg
- Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS02 GHS05

Signal word

Danger

Hazard-determining components of labelling:

Alcohols, C12-C14, ethoxylated, sulphates, sodium salts
H226 Flammable liquid and vapour.
H318 Causes serious eye damage.

Hazard statements

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

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P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves / eye protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.





2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

- Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

	anionic surfactants	 Eye Dam. 1, H318  Skin Irrit. 2, H315 Aquatic Chronic 3, H412	1-5%
CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0 Reg.nr.: 01-2119457558-25-xxxx	propan-2-ol	 Flam. Liq. 2, H225  Eye Irrit. 2, H319; STOT SE 3, H336	12.5-25%

Regulation (EC) No 648/2004 on detergents / Labelling for contents

anionic surfactants, perfumes ((R)-p-mentha-1,8-diene)	<5%
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- Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General information: Take affected persons out into the fresh air. Keep warm, position comfortably and cover well. Immediately remove any clothing soiled by the product. No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: 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: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

- Information for doctor: Breathing difficulty
Dizziness
Dizziness
Nausea
Symptoms in alcohol intoxication:
a) acute intoxication: euphoria, inhibitions, disturbances in co-ordination; in severe cases insensibility, respiratory dysfunction.
b) chronic intoxication: CNS-, hepatic and cardiac dysfunctions with change of personality, alcohol induced hepatitis and reduced cardiac power.
Therapy in alcohol intoxication:
In acute intoxication observation of circulatory system, artificial breathing when

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- Hazards indicated, gastrolavage, peritoneal or hemodialysis.
- **4.3 Indication of any immediate medical attention and special treatment needed** Danger of impaired breathing.
If swallowed, gastric irrigation with added, activated carbon.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NO_x)
Hydrogen chloride (HCl)
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- Protective equipment: Do not inhale explosion gases or combustion gases.
- Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Dilute with plenty water.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **6.4 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.
No dangerous substances are released.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
When diluting always pour product into water and not vice versa.
No special measures required.
Ensure good ventilation/exhaustion at the workplace.
- Information about fire - and explosion protection: No special measures required.

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- **7.2 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 oxidising agents.
Store away from foodstuffs.
- Further information about storage conditions: Protect from frost.
Store receptacle in a well ventilated area.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

67-63-0 propan-2-ol

WEL	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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- DNELs

67-63-0 propan-2-ol

Oral	DNEL (Langzeit-wiederholt)	26 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	888 mg/kg bw/day (ARB)
		319 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	500 mg/m ³ Air (ARB)
		89 mg/m ³ Air (BEV)

Alcohols, C12-C14, ethoxylated, sulphates, sodium salts

Oral	DNEL (Langzeit-wiederholt)	15 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	2,050 mg/kg bw/day (ARB)
		1,650 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	175 mg/m ³ Air (ARB)
		52 mg/m ³ Air (BEV)

- PNECs

67-63-0 propan-2-ol

PNEC (wässrig)	2,251 mg/l (KA)
	140.9 mg/l (MW)
	140.9 mg/l (SW)
	140.9 mg/l (WAS)
PNEC (fest)	28 mg/kg Trockengew (BO)
	552 mg/kg Trockengew (MWS)
	552 mg/kg Trockengew (SWS)

Alcohols, C12-C14, ethoxylated, sulphates, sodium salts

PNEC (wässrig)	10,000 mg/l (KA)
	0.024 mg/l (MW)
	0.24 mg/l (SW)

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PNEC (fest)	0.071 mg/l (WAS) 0.946 mg/kg Trockengew (BO) 0.545 mg/kg Trockengew (MWS) 5.45 mg/kg Trockengew (SWS)
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· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· Personal protective equipment:

· General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.
Apply water proof skin cream before starting work.
Immediately remove all soiled and contaminated clothing
Do not inhale gases / fumes / aerosols.

· Respiratory protection:

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:

Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.



Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:

STOKO EMULSION (<http://www.stoko.com>)

Skin protection recommendation for skin cleaning after product handling:

FRAPANTOL (<http://www.stoko.com>)

Skin protection agent recommendation for skin aftercare:

STOKO VITAN (<http://www.stoko.com>)

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

· Material of gloves

Nitrile rubber, NBR

Butyl rubber, BR

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.

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- Penetration time of glove material Value for the permeation: Level \leq 6, 480 min
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- For the permanent contact gloves made of the following materials are suitable:
 - Nitrile rubber, NBR
 - Camatril (KCL, Art_No. 730, 731, 732, 733)
 - Butyl rubber, BR
 - Butoject (KCL, Art_No. 897, 898)
 - Fluorocarbon rubber (Viton)
 - Vitoject (KCL, Art_No. 890)
- As protection from splashes gloves made of the following materials are suitable:
 - Nitrile rubber, NBR
 - Camatril (KCL, 730, 731, 732, 733)
- Not suitable are gloves made of the following materials:
 - Leather gloves
 - Strong material gloves
- Eye protection: Goggles recommended during refilling
- Body protection: Protective work clothing

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

<u>Form:</u>	Fluid
<u>Colour:</u>	Colourless
<u>Odour:</u>	Characteristic

· pH-value at 20 °C: 9**· Change in condition**

<u>Melting point/freezing point:</u>	Undetermined.
<u>Initial boiling point and boiling range:</u>	82 °C

· Flash point: > 55 °C· Ignition temperature: 425 °C· Auto-ignition temperature: Product is not selfigniting.· Explosive properties: Product does not present an explosion hazard.**· Explosion limits:**

<u>Lower:</u>	2 Vol %
<u>Upper:</u>	12 Vol %

· Vapour pressure at 20 °C: 43 hPa· Density at 20 °C: 0.98 g/cm³**· Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· Viscosity:

<u>Dynamic:</u>	Not determined.
<u>Kinematic at 20 °C:</u>	11 s (DIN 53211/4)

· Solvent content:

<u>Organic solvents:</u>	14.4 %
<u>Water:</u>	71.8 %

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Solids content:	16.6 %
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:
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67-63-0 propan-2-ol

Oral	LD50	>2,000 mg/kg (rabbit) 5,840 mg/kg (rat) (OECD 401)
	NOAEL-Werte	400 mg/kg (rat)
Dermal	LD50	13,900 mg/kg (rabbit) (OECD 402)
	Inhalative	LC50/8h 47.5 ppm (rat)
	LC50/4 h	30-46.5 mg/l (rat)
	LC50	25,000 mg/m ³ (rat)
	LC50/48h	>100 mg/l (Leuciscus idus)

Alcohols, C12-C14, ethoxylated, sulphates, sodium salts

Oral	LD50	2,001 mg/kg (rat)
Dermal	LD50	2,001 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, 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.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**12.1 Toxicity**

· Aquatic toxicity:

67-63-0 propan-2-ol

EC50/24h	9,714 mg/l (daphnia magna)
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EC50	>1,000 mg/l (BES)
LC50/24h	9,714 mg/l (daphnia magna)
EC50/15min	22,000 mg/l (Photobac. phosphoreum)
IC50/72h	>1,000 mg/l (Desmodesmus subspicatus)
EC10/18h	5,175 mg/l (pseudomonas putida) (DIN 38412)
EC50/48h	13,299 mg/l (daphnia magna)
EC50/72h	>1,000 mg/l (green alge)
	>100 mg/l (Scenedesmus subspicatus)
LC50/96h	6,550 mg/l (piscis)
	9,640 mg/l (Pimephales promelas)

Alcohols, C12-C14, ethoxylated, sulphates, sodium salts

EC50/48h	7.4 mg/l (daphnia magna)
EC50/72h	27 mg/l (Scenedesmus subspicatus)
LC50/96h	7.1 mg/l (Brachydanio rerio)

- **12.2 Persistence and degradability**

No further relevant information available.

- **12.3 Bioaccumulative potential**

No further relevant information available.

- **12.4 Mobility in soil**

No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

- **12.5 Results of PBT and vPvB assessment**

- **PBT:**

Not applicable.

- **vPvB:**

Not applicable.

- **12.6 Other adverse effects**

No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements. Smaller quantities can be disposed of with household waste.

- **European waste catalogue**

20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 29*	detergents containing hazardous substances
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 02	plastic packaging

- **Uncleaned packaging:**

- **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

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SECTION 14: Transport information

- **14.1 UN-Number**
- ADR, IMDG, IATA

UN1993

- **14.2 UN proper shipping name**
- ADR

1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))
 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))

- IMDG, IATA

- **14.3 Transport hazard class(es)**

- ADR



- Class
- Label

3 (F1) Flammable liquids.
3

- IMDG, IATA



- Class
- Label

3 Flammable liquids.
3

- **14.4 Packing group**
- ADR, IMDG, IATA

III

- **14.5 Environmental hazards:**

- Marine pollutant:

No

- **14.6 Special precautions for user**

Warning: Flammable liquids.

- Danger code (Kemler):

30

- EMS Number:

F-E, S-E

- Stowage Category

A

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

- Transport/Additional information:

- ADR

- 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

- Transport category

3

- Tunnel restriction code

D/E

- 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

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. * Data compared to the previous
version altered.

Adaptation in accordance with REACH directive 1907/2006/EC

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