

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.02.2021

Version number 12

Revision: 05.02.2021

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, 10999
- UFI: AQUP-SJ1A-T01X-FWYD

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

No further relevant information available.

Application of the substance / the mixture

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

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

Hazard statements

H226 Flammable liquid and vapour.
H318 Causes serious eye damage.

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read carefully and follow all instructions.
- 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.

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P403+P235
P501Store in a well-ventilated place. Keep cool.
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%

· 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.

· Information for doctor: 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 indicated, gastrolavage, peritoneal or hemodialysis.

· 4.2 Most important symptoms and effects, both acute and delayedBreathing difficulty
Dizziness
Dizziness
Nausea
Danger of impaired breathing.

· Hazards

· 4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, activated carbon.

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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.

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.

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- Further information about storage conditions: Protect from frost.
Store receptacle in a well ventilated area.
- Storage class: 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

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

67-63-0 propan-2-ol

WEL Short-term value: 1250 mg/m³, 500 ppm
Long-term value: 999 mg/m³, 400 ppm

- 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)	2,750 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)
	0.071 mg/l (WAS)
PNEC (fest)	0.946 mg/kg Trockengew (BO)
	0.545 mg/kg Trockengew (MWS)
	5.45 mg/kg Trockengew (SWS)

- Additional information: The lists valid during the making were used as basis.

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· 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.

· Penetration time of glove material

Value for the permeation: Level ≤ 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

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- | | |
|---|--|
| <ul style="list-style-type: none"> · <u>As protection from splashes gloves made of the following materials are suitable:</u> · <u>Not suitable are gloves made of the following materials:</u> · <u>Eye protection:</u> · <u>Body protection:</u> | <p>Butoject (KCL, Art_No. 897, 898)
 Fluorocarbon rubber (Viton)
 Vitoject (KCL, Art_No. 890)</p> <p>Nitrile rubber, NBR
 Camatril (KCL, 730, 731, 732, 733)</p> <p>Leather gloves
 Strong material gloves
 Goggles recommended during refilling
 Protective work clothing</p> |
|---|--|

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>	81.4 %

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.

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- **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:

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	>2,000-5,000 mg/kg (rat)
Dermal	LD50	>2,000 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.
- Additional toxicological information:
- 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)
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)

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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)
NOEC/21d	0.27 mg/l (daphnia magna)
NOELR/28d	0.14 mg/l (Oncorhynchus mykiss)
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 2 (German Regulation) (Self-assessment): 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.

- Uncleaned packaging:

- Recommendation:

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

* **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))

- IMDG, IATA

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

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

- ADR



- Class

3 (F1) Flammable liquids.

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· <u>Label</u>	3
· <u>IMDG, IATA</u>	
	
· <u>Class</u>	3 Flammable liquids.
· <u>Label</u>	3
· 14.4 Packing group	
· <u>ADR, IMDG, IATA</u>	III
· 14.5 Environmental hazards:	
· <u>Marine pollutant:</u>	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· <u>Hazard identification number (Kemler code):</u>	30
· <u>EMS Number:</u>	F-E,S-E
· <u>Stowage Category</u>	A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· <u>Transport/Additional information:</u>	
· <u>ADR</u>	
· <u>Excepted quantities (EQ)</u>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <u>IMDG</u>	
· <u>Limited quantities (LQ)</u>	5L
· <u>Excepted quantities (EQ)</u>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <u>UN "Model Regulation":</u>	UN 1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, III

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Directive 2012/18/EU
 - Named dangerous substances - ANNEX I
 - Seveso category
 - Qualifying quantity (tonnes) for the application of lower-tier requirements
 - Qualifying quantity (tonnes) for the application of upper-tier requirements
 - National regulations:
 - Waterhazard class:
 - VOC EU
 - **15.2 Chemical safety assessment:**
- None of the ingredients is listed.
P5c FLAMMABLE LIQUIDS
- 5,000 t
- 50,000 t
- Water hazard class 2 (Self-assessment): hazardous for water.
140.4 g/l
- A Chemical Safety Assessment has not been carried out.

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SECTION 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.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H319 Causes serious eye irritation.
 - H336 May cause drowsiness or dizziness.
 - H412 Harmful to aquatic life with long lasting effects.

- Recommended restriction of use
 - refer to Technical Data Sheet (TDS)

- Department issuing SDS:
 - Laboratory
- Abbreviations and acronyms:
 - ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 - 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)
 - DNEL: Derived No-Effect Level (REACH)
 - PNEC: Predicted No-Effect Concentration (REACH)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - Flam. Liq. 2: Flammable liquids – Category 2
 - 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
 - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 - Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- * Data compared to the previous version altered.
- Datasheet created on:
 - Adaptation in accordance with REACH directive 1907/2006/EC
 - 13.12.2019