

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/19/2015

Reviewed on 02/19/2015

1 Identification

- **Product identifier**
- Trade name: **Triple Effect**
- Article number: 10846, 11853
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- Application of the substance / the mixture Protective impregnation
- **Details of the supplier of the safety data sheet**
- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH Tel. +49(0)911-642960
Lechstrasse 28 Fax. +49(0)911-644456
D 90451 Nürnberg e-mail info@akemi.de
- Information department: Laboratory
- **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.

2 Hazard(s) identification

- **Classification of the substance or mixture**




GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
- Information concerning particular hazards for human and environment: The product does not have 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 was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms
 - 
 - GHS07
- Signal word Warning
- Hazard statements H319 Causes serious eye irritation.
- Precautionary statements
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P103 Read label before use.
 - P280 Wear eye protection / face protection.
 - P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 If eye irritation persists: Get medical advice/attention.

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- Classification system:
- NFPA ratings (scale 0 - 4)

Health = 0
Fire = 2
Reactivity = 0

HEALTH	0	Health = 0
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

- HMIS-ratings (scale 0 - 4)

· **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 the substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0	propan-2-ol ☒ Xi R36; ☒ F R11 R67 ----- ☒ Flam. Liq. 2, H225 ☒ Eye Irrit. 2, H319; STOT SE 3, H336	<12.5%
CAS: 75-65-0 EINECS: 200-889-7 Index number: 603-005-00-1	2-methylpropan-2-ol ☒ Xn R20; ☒ F R11 ----- ☒ Flam. Liq. 2, H225 ☒ Acute Tox. 4, H332; Eye Irrit. 2A, H319; STOT SE 3, H335	<1%

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

4 First-aid measures

· **Description of first aid measures**

- General information: No special measures required.
- 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: If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- 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.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

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5 Fire-fighting measures

- **Extinguishing media**
- Suitable extinguishing agents: CO2, extinguishing 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** Not required.
- **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).
- **Reference to other sections** No dangerous substances are released.

7 Handling and storage

- **Precautions for safe handling** No special measures required.
- Information about protection against explosions and fires: No special measures required.
- **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: Protect from frost.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

· Components with limit values that require monitoring at the workplace:

67-63-0 propan-2-ol

PEL	Long-term value: 980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm
BEI	

75-65-0 2-methylpropan-2-ol

PEL	Long-term value: 300 mg/m ³ , 100 ppm
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REL	Short-term value: 450 mg/m ³ , 150 ppm Long-term value: 300 mg/m ³ , 100 ppm
TLV	Long-term value: 303 mg/m ³ , 100 ppm

· Ingredients with biological limit values:

67-63-0 propan-2-ol

BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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· Additional information:

The lists that were valid during the creation were used as basis.

· **Exposure controls**

- Personal protective equipment:
- General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.
Not necessary if room is well-ventilated.

· Breathing equipment:

· 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.
Akemi skin protection agent recommendation for preventive skin shelter without use of protective gloves:
STOKODERM (<http://www.stoko.com>)
Akemi skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (<http://www.stoko.com>)
Akemi skin protection recommendation for skin cleaning after product handling:
FRAPANTOL (<http://www.stoko.com>)
Akemi 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

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
Fluorocarbon rubber (Viton)
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

Value for the permeation: Level ≤ 6, 480 min

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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:
 Fluorocarbon rubber (Viton)
 Vitoject (KCL, Art No. 890)
 Butyl rubber, BR
 Butoject (KCL, Art No. 897, 898)
- As protection from splashes gloves made of the following materials are suitable:
 Fluorocarbon rubber (Viton)
 Vitoject (KCL, Art No. 890)
 Butyl rubber, BR
 Butoject (KCL, Art No. 897, 898)
 Nitrile rubber, NBR
 Camatril (KCL, 730, 731, 732, 733)
- Not suitable are gloves made of the following materials:
 Leather gloves
 Strong gloves
- Eye protection:
 Goggles recommended during refilling.
- Body protection:
 Apron

9 Physical and chemical properties

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

· General Information

· Appearance:

- Form: Fluid
- Color: Light yellow
- Odor: Characteristic

· pH-value at 20 °C (68 °F): 7

· Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: 82 °C (180 °F)

· Flash point: > 55 °C (> 131 °F)

· Ignition temperature: 425 °C (797 °F)

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

- Lower: 2.0 Vol %
- Upper: 12.0 Vol %

· Vapor pressure at 20 °C (68 °F): 43 hPa (32 mm Hg)

· Density at 20 °C (68 °F): 0.99 g/cm³ (8.262 lbs/gal)

· Specific gravity at 20 °C (68 °F): 0.99 g/cm³ (8.262 lbs/gal)

· Solubility in / Miscibility with

Water: Fully miscible.

· Viscosity:

- Dynamic: Not determined.
- Kinematic at 20 °C (68 °F): 11 s (DIN 53211/4)

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- Solvent content:
 - Organic solvents: 10.1 %
 - Water: 88.0 %
- **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.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- Acute toxicity:

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	19092 mg/kg
Inhalative	LC50/4 h	300 mg/l (rat)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information: The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- Carcinogenic categories

· IARC (International Agency for Research on Cancer)

67-63-0	propan-2-ol	3
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· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- Aquatic toxicity: No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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- 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 (Self-assessment): slightly hazardous for water
- **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: Smaller quantities can be disposed of with household waste.
- Uncleaned packagings:
- Recommendation: Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

<u>UN-Number</u>	Void
<u>DOT, ADR, ADN, IMDG, IATA</u>	Void
<u>UN proper shipping name</u>	Void
<u>DOT, ADR, ADN, IMDG, IATA</u>	Void
<u>Transport hazard class(es)</u>	Void
<u>DOT, ADR, ADN, IMDG, IATA</u>	Void
<u>Class</u>	Void
<u>Packing group</u>	Void
<u>DOT, ADR, IMDG, IATA</u>	Void
<u>Environmental hazards:</u>	No
<u>Marine pollutant:</u>	No
<u>Special precautions for user</u>	Not applicable.
<u>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</u>	Not applicable.
<u>Transport/Additional information:</u>	Not dangerous according to the above specifications.
<u>UN "Model Regulation":</u>	-

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Sara

· Section 355 (extremely hazardous substances):
None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

67-63-0	propan-2-ol
75-65-0	2-methylpropan-2-ol

· TSCA (Toxic Substances Control Act):
All ingredients are listed.

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· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenicity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

67-63-0	propan-2-ol	A4
75-65-0	2-methylpropan-2-ol	A4

· 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.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS07

· Signal word

Warning

· Hazard statements

H319 Causes serious eye irritation.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.
 P280 Wear eye protection / face protection.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice/attention.

· National regulations:

· Water hazard class:

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

· VOC USA

107.3 g/l / 0.90 lb/gl

· **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.

· Department issuing SDS:

Laboratory

· Contact:

Dieter Zimmermann

· Date of preparation / last revision

02/19/2015 / 2

· 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)

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ICAO: International Civil Aviation Organisation
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
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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