

**Safety Data Sheet dated 2/4/2021, version 7.0**  
**This version cancels and substitutes any previous version**



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

- 1.1. Product identifier  
Mixture identification:  
Trade name: AXE
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Recommended use:  
Ice dissolvers for cooling appliances
- 1.3. Details of the supplier of the safety data sheet  
Company:  
ERRECOM SPA  
Via Industriale, 14  
Corzano (BS) Italy  
Tel. +39 030/9719096
- Competent person responsible for the safety data sheet:  
lab@errecom.it
- 1.4. Emergency telephone number  
+39 02-6610-1029 Poison Control Center Niguarda Ca' Granda - Milano - ITALY

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**SECTION 2: Hazards identification**

- 2.1. Classification of the substance or mixture  
EC regulation criteria 1272/2008 (CLP)
-  Warning, Flam. Liq. 3, Flammable liquid and vapour.
-  Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:  
No other hazards

- 2.2. Label elements  
Hazard pictograms:



- Warning
- Hazard statements:  
H226 Flammable liquid and vapour.  
H319 Causes serious eye irritation.
- Precautionary statements:  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280 Wear eye protection.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with applicable regulations.
- Special Provisions:  
None
- Special provisions according to Annex XVII of REACH and subsequent amendments:  
None

# Safety Data Sheet

## AXE



### 2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$

### Other Hazards:

No other hazards

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

N.A.

### 3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
$\geq 40\%$ - $< 50\%$	ethanol	Index number: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6 REACH No.: 01-21194576 10-43-XXXX	2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319
$\geq 5\%$ - $< 7\%$	propan-2-ol	Index number: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7 REACH No.: 01-21194575 58-25-XXXX	2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H336

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

In case of skin contact:

After contact with skin, wash immediately with plenty of water.

Wash contaminated clothing before using them.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

No information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

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### SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

See subsection 10.5

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

Information not available.

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### SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethanol - CAS: 64-17-5

ACGIH - STEL(15min): 1884 mg/m<sup>3</sup>, 1000 ppm - Notes: A3 - URT irr

AGW - TWA(8h): 380 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 1520 mg/m<sup>3</sup>, 800 ppm  
 MAK - TWA(8h): 380 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 1520 mg/m<sup>3</sup>, 800 ppm  
 VLA - STEL(15min): 1910 mg/m<sup>3</sup>, 1000 ppm  
 VLEP - TWA(8h): 1900 mg/m<sup>3</sup>, 1000 ppm - STEL(15min): 9500 mg/m<sup>3</sup>, 5000 ppm  
 WEL - TWA(8h): 1920 mg/m<sup>3</sup>, 1000 ppm  
 TLV (GR) - TWA(8h): 1900 mg/m<sup>3</sup>, 1000 ppm  
 GVI - TWA(8h): 1900 mg/m<sup>3</sup>, 1000 ppm  
 NDS - TWA(8h): 1900 mg/m<sup>3</sup>  
 NPHV - TWA(8h): 960 mg/m<sup>3</sup>, 500 ppm - STEL(15min): 1920 mg/m<sup>3</sup>  
 TLV - TWA(8h): 1000 mg/m<sup>3</sup>  
 TLV (CZ) - TWA(8h): 1000 mg/m<sup>3</sup>, 522 ppm - STEL(15min): 3000 mg/m<sup>3</sup>, 1566 ppm  
 TLV (EST) - TWA(8h): 1000 mg/m<sup>3</sup>, 500 ppm - STEL(15min): 1900 mg/m<sup>3</sup>, 1000 ppm

propan-2-ol - CAS: 67-63-0

ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

AGW - TWA(8h): 500 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 1000 mg/m<sup>3</sup>, 400 ppm  
 MAK - TWA(8h): 500 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 1000 mg/m<sup>3</sup>, 400 ppm  
 VLA - TWA(8h): 500 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 1000 mg/m<sup>3</sup>, 400 ppm  
 VLEP - STEL(15min): 980 mg/m<sup>3</sup>, 400 ppm  
 WEL - TWA(8h): 999 mg/m<sup>3</sup>, 400 ppm - STEL(15min): 1250 mg/m<sup>3</sup>, 500 ppm  
 TLV - TWA(8h): 980 mg/m<sup>3</sup>, 400 ppm - STEL(15min): 1225 mg/m<sup>3</sup>, 500 ppm  
 NDS - TWA(8h): 900 mg/m<sup>3</sup> - STEL(15min): 1200 mg/m<sup>3</sup>  
 NPHV - TWA(8h): 500 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 1000 mg/m<sup>3</sup>  
 MV - TWA(8h): 500 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 2000 mg/m<sup>3</sup>, 800 ppm  
 GVI - TWA(8h): 999 mg/m<sup>3</sup>, 400 ppm - STEL(15min): 1250 mg/m<sup>3</sup>, 500 ppm  
 TLV (CZ) - TWA(8h): 500 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 1000 mg/m<sup>3</sup>, 400 ppm  
 TLV (EST) - TWA(8h): 350 mg/m<sup>3</sup>, 150 ppm - STEL(15min): 600 mg/m<sup>3</sup>, 250 ppm

**DNEL Exposure Limit Values**

ethanol - CAS: 64-17-5

Worker Industry: 1900 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Industry: 950 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 343 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

propan-2-ol - CAS: 67-63-0

Consumer: 26 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Worker Industry: 500 mg/m<sup>3</sup> - Consumer: 89 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 888 mg/kg - Consumer: 319 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

**PNEC Exposure Limit Values**

ethanol - CAS: 64-17-5

Target: Fresh Water - Value: 0.96 mg/l

Target: Marine water - Value: 0.79 mg/l

Target: Freshwater sediments - Value: 36 mg/kg

Target: Marine water sediments - Value: 2.9 mg/kg

Target: Aquatic, periodic release - Value: 2.75 mg/l

Target: Microorganisms in sewage treatments - Value: 580 mg/l

Target: Secondary poisoning - Value: 0.72 mg/kg

Target: Soil (agricultural) - Value: 0.63 mg/kg

propan-2-ol - CAS: 67-63-0

Target: Fresh Water - Value: 140.9 mg/l

Target: Marine water - Value: 140.9 mg/l

Target: Freshwater sediments - Value: 552 mg/kg  
 Target: Aquatic, periodic release - Value: 140.9 mg/l  
 Target: Microorganisms in sewage treatments - Value: 2251 mg/l  
 Target: Secondary poisoning - Value: 160 mg/kg  
 Target: Soil (agricultural) - Value: 28 mg/kg

### 8.2. Exposure controls

#### Eye protection:

Protective airtight goggles (ref. Standard EN 166).

#### Protection for skin:

Not needed for normal use.

#### Protection for hands:

Not needed for normal use.

#### Respiratory protection:

In case of exceeding the threshold value of the substance or one or more of the substances present in the product, it is advisable to wear a mask with type A filter whose class (1, 2 or 3) must be chosen in relation to the limit concentration of use. (see standard EN 14387). If there are gases or vapors of a different nature and / or gases or vapors with particles (aerosols, fumes, mists, etc.), combined filters must be provided.

The use of respiratory protective equipment is necessary if the technical measures adopted are not sufficient to limit the worker's exposure to the threshold values taken into consideration. However, the protection offered by the masks is limited.

#### Thermal Hazards:

None

#### Environmental exposure controls:

None

#### Appropriate engineering controls:

None

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	N.A.	--	--
Odour:	characteristic	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	>35 °C	--	--
Flammability:	Flam. Liq. 3, H226	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	29 ° C	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	N.A.	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	total	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--

# Safety Data Sheet

## AXE



Vapour pressure:	N.A.	--	--
Density and/or relative density:	0.91 g/mL (+20°C/+68°F)	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

### 9.2. Other information

No other relevant information

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions

### 10.2. Chemical stability

Stable under normal conditions

### 10.3. Possibility of hazardous reactions

Vapors may form explosive mixtures with air.

### 10.4. Conditions to avoid

Avoid overheating, electrostatic discharge and all sources of ignition.

Store away from heat.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

When heated or in the event of fire may release gases and vapors potentially dangerous to health.

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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

#### a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

#### b) skin corrosion/irritation

Not classified

Based on available data, the classification criteria are not met

#### c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

#### d) respiratory or skin sensitisation

Not classified

Based on available data, the classification criteria are not met

#### e) germ cell mutagenicity

Not classified

Based on available data, the classification criteria are not met

#### f) carcinogenicity

Not classified

Based on available data, the classification criteria are not met

#### g) reproductive toxicity

Not classified

Based on available data, the classification criteria are not met

#### h) STOT-single exposure

Not classified

Based on available data, the classification criteria are not met

i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Adverse health effects

In the absence of experimental toxicological data on the product itself, the potential risks of the product to health were evaluated based on the properties of substances, according to the criteria laid down by the relevant regulations for the classification. Consider, therefore, the concentration of each substance dangerous possibly mentioned in section 3, to assess the toxicological effects resulting from exposure to the product.

Toxicological information of the main substances found in the product:

ethanol - CAS: 64-17-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Mouse > 20 mg/l - Duration: 4h

propan-2-ol - CAS: 67-63-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 4710 mg/kg

Test: LD50 - Route: Skin - Species: Rat 12800 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 72.6 mg/l - Duration: 4h

Test: LD50 - Route: Skin - Species: Rabbit 6290 mg/kg

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

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## SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Not classified for environmental hazards

Based on available data, the classification criteria are not met

ethanol

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 11200 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 12300 mg/l - Duration h: 48 - Notes: Species:

Daphnia magna

Endpoint: EC50 - Species: Algae > 275 mg/l - Duration h: 72 - Notes: Species:

Chlorella vulgaris

propan-2-ol

a) Aquatic acute toxicity:

Endpoint: EC0 - Species: Fish 10000 mg/l - Duration h: 48 - Notes: Pimephales promelas

Endpoint: LC50 - Species: Fish > 1400 mg/l - Duration h: 96 - Notes: Lepomis macrochirus

Endpoint: LC50 - Species: Fish 6550 mg/l - Duration h: 96 - Notes: Pimephales promelas

12.2. Persistence and degradability

AXE

Biodegradability: Readily biodegradable

ethanol - CAS: 64-17-5

- Biodegradability: Readily biodegradable - Test: Solubility in water - Notes: 1000 - 10000 mg/L  
 propan-2-ol - CAS: 67-63-0  
 Biodegradability: Readily biodegradable
- 12.3. Bioaccumulative potential  
 ethanol - CAS: 64-17-5  
 Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.350000-  
 propan-2-ol - CAS: 67-63-0  
 Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.05
- 12.4. Mobility in soil  
 N.A.
- 12.5. Results of PBT and vPvB assessment  
 vPvB Substances: None - PBT Substances: None
- 12.6. Endocrine disrupting properties  
 No endocrine disruptor substances present in concentration  $\geq 0.1\%$
- 12.7. Other adverse effects  
 None

### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
 Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

### SECTION 14: Transport information



- 14.1. UN number or ID number  
 ADR-UN Number: 1993  
 IATA-UN Number: 1993  
 IMDG-UN Number: 1993
- 14.2. UN proper shipping name  
 ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (ethanol, propan-2-ol)  
 IATA-Shipping Name: FLAMMABLE LIQUID, N.O.S. (ethanol, propan-2-ol)  
 IMDG-Shipping Name: FLAMMABLE LIQUID, N.O.S. (ethanol, propan-2-ol)
- 14.3. Transport hazard class(es)  
 ADR-Class: 3  
 ADR - Hazard identification number: 30  
 IATA-Class: 3  
 IATA-Label: 3  
 IMDG-Class: 3
- 14.4. Packing group  
 ADR-Packing Group: III  
 IATA-Packing group: III  
 IMDG-Packing group: III
- 14.5. Environmental hazards  
 ADR-Environmental Pollutant: No  
 IMDG-Marine pollutant: No
- |           |     |   |     |
|-----------|-----|---|-----|
| IMDG-EmS: | F-E | , | S-E |
|-----------|-----|---|-----|
- 14.6. Special precautions for user



ADR-Subsidiary hazards:	-
ADR-S.P.:	274 601
ADR-Transport category (Tunnel restriction code):	3 (D/E)
IATA-Passenger Aircraft:	355
IATA-Subsidiary hazards:	-
IATA-Cargo Aircraft:	366
IATA-S.P.:	A3
IATA-ERG:	3L
IMDG-Subsidiary hazards:	-
IMDG-Stowage and handling:	Category A
IMDG-Segregation:	-

14.7. Maritime transport in bulk according to IMO instruments  
N.A.

### SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: P5c

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

**SECTION 16: Other information**

Full text of phrases referred to in Section 3:  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3

This safety data sheet has been completely updated in compliance to Regulation 2020/878. Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Flam. Liq. 3, H226	On basis of test data
Eye Irrit. 2, H319	Calculation method

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities  
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
ATE: Acute Toxicity Estimate  
ATEmix: Acute toxicity Estimate (Mixtures)  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CLP: Classification, Labeling, Packaging.  
DNEL: Derived No Effect Level.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.

# Safety Data Sheet

## AXE



INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.