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

### 1.1. Product identifier

Malolaktik-Indikatorlösung Bromphenolblau 0,66 g/l in 1-Butanol / Essigsäure / Wasser

UFI: FV0Y-K285-X00G-ESX0

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

**Use of the substance/mixture**

Laboratory chemicals
Industrial uses: Uses of substances as such or in preparations at industrial sites
Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

**Uses advised against**

Do not use for private purposes (household).

### 1.3. Details of the supplier of the safety data sheet

| | | | |
|---|---|---|---|
| Company name: | AnalytiChem GmbH<br>ACD | | |
| Street: | Stempelstraße 6 | | |
| Place: | D-47167 Duisburg | | |
| Telephone: | 0203/5194-0 | Telefax: | 0203/5194-290 |
| E-mail: | info@analytichem.de | | |
| Contact person: | Abteilung Produktsicherheit | Telephone: | 0203/5194-107/117 |
| E-mail: | produktsicherheit@analytichem.de | | |
| Internet: | www.analytichem.de | | |
| Responsible Department: | Abteilung Produktsicherheit | | |

### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

Flam. Liq. 3; H226
Acute Tox. 4; H302
Skin Irrit. 2; H315
Eye Dam. 1; H318
STOT SE 3; H335 H336

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

butanol
acetic acid

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

| | |
|---|---|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |

**Precautionary statements**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing 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. |
| P310 | Immediately call a POISON CENTER/doctor. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |

### 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Relevant ingredients**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 71-36-3 | butanol | | | 60 - < 65 % |
| | 200-751-6 | 603-004-00-6 | 01-2119484630-38 | |
| | Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, STOT SE 3; H226 H302 H315 H318 H335 H336 | | | |
| 64-19-7 | acetic acid | | | 15 - < 20 % |
| | 200-580-7 | 607-002-00-6 | 01-2119475328-30 | |
| | Flam. Liq. 3, Skin Corr. 1A; H226 H314 | | | |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific Conc. Limits, M-factors and ATE | | |
| 71-36-3 | 200-751-6 | butanol | 60 - < 65 % |
| | dermal: LD50 = ca. 3430 mg/kg; oral: LD50 = ca. 2292 mg/kg | | |
| 64-19-7 | 200-580-7 | acetic acid | 15 - < 20 % |
| | inhalation: LC50 = 11,4 mg/l (vapours); oral: LD50 = 3310 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 | | |

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information**

Take off immediately all contaminated clothing and wash it before reuse.

**After inhalation**

Provide fresh air.
Call a physician immediately.

**After contact with skin**

Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Observe risk of aspiration if vomiting occurs.
Call a physician immediately.

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

Risk of serious damage to eyes.
Irritant
corrosive
Vapours may cause drowsiness and dizziness.
Cough
Dyspnoea
Cardiac arrhythmias
Circulatory collapse
Vomiting
Inebriation
Dizziness
Anaesthetic state
Respiratory complaints

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

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media**

Carbon dioxide (CO2)
Foam
Extinguishing powder

**Unsuitable extinguishing media**

no restriction

### 5.2. Special hazards arising from the substance or mixture

Combustible liquids
Hazardous combustion products
In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide
In case of warming:
Vapours are heavier than air, spread along floors and form explosive mixtures with air.
Heating causes rise in pressure with risk of bursting.

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.
In case of fire and/or explosion do not breathe fumes.
Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**General advice**

Keep away from sources of ignition - No smoking.
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
Take action to prevent static discharges.

**For non-emergency personnel**

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.
The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
Danger of explosion

### 6.3. Methods and material for containment and cleaning up

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### 6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling**

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Keep container tightly closed.
Use personal protection equipment. Use extractor hood (laboratory).
Do not breathe vapour/aerosol. Provide adequate ventilation.

**Advice on protection against fire and explosion**

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.
Wash hands and face before breaks and after work and take a shower if necessary.
When using do not eat or drink.
Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.
Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.
Store in a cool dry place.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Hints on joint storage**

national regulations

**Further information on storage conditions**

Protect from sunlight.

### 7.3. Specific end use(s)

Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational exposure limits**

| CAS No | Substance | ppm | mg/m³ | fib/cm³ | Category | Origin |
|---|---|---|---|---|---|---|
| 64-19-7 | Acetic acid | 10 | 25 | | TWA (8 h) | |
| | | 20 | 50 | | STEL (15 min) | |
| 71-36-3 | Butan-1-ol | 20 | - | | TWA (8 h) | |

**DNEL/DMEL values**

| CAS No | Substance | | | |
|---|---|---|---|---|
| DNEL type | | Exposure route | Effect | Value |
| 71-36-3 | butanol | | | |
| Worker DNEL, long-term | | inhalation | local | 310 mg/m³ |
| Consumer DNEL, long-term | | inhalation | systemic | 55,357 mg/m³ |
| Consumer DNEL, long-term | | inhalation | local | 155 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 3,125 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 1,562 mg/kg bw/day |
| 64-19-7 | acetic acid | | | |
| Worker DNEL, long-term | | inhalation | local | 25 mg/m³ |
| Worker DNEL, acute | | inhalation | local | 25 mg/m³ |
| Consumer DNEL, long-term | | inhalation | local | 25 mg/m³ |
| Consumer DNEL, acute | | inhalation | local | 25 mg/m³ |

**PNEC values**

| CAS No | Substance | |
|---|---|---|
| Environmental compartment | | Value |
| 71-36-3 | butanol | |
| Freshwater | | 0,082 mg/l |
| Freshwater (intermittent releases) | | 2,25 mg/l |
| Marine water | | 0,008 mg/l |
| Freshwater sediment | | 0,324 mg/kg |
| Marine sediment | | 0,032 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 2476 mg/l |
| Soil | | 0,017 mg/kg |
| 64-19-7 | acetic acid | |
| Freshwater | | 3,058 mg/l |
| Freshwater (intermittent releases) | | 30,58 mg/l |
| Marine water | | 0,306 mg/l |
| Freshwater sediment | | 11,36 mg/kg |
| Marine sediment | | 1,136 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 85 mg/l |
| Soil | | 0,47 mg/kg |

## 8.2. Exposure controls

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles

Face protection umbrella

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact:
Trade name/designation: KCL 897 Butoject®
Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact
Trade name/designation: KCL 897 Butoject®
Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

**Skin protection**

Wear fire resistant or flame retardant clothing.
Take off immediately all contaminated clothing and wash it before reuse.
Wear suitable protective clothing. Take off immediately all contaminated clothing.
Wash hands and face before breaks and after work and take a shower if necessary.
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.
Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.
Danger of explosion

## SECTION 9: Physical and chemical properties

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

| | | |
|---|---|---|
| Physical state: | Liquid | |
| Colour: | | |
| Odour: | characteristic | |
| Odour threshold: | No data available | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and boiling range: | | >35 °C |
| Flammability: | | No data available |
| Lower explosion limits: | | No data available |

| | |
|---|---|
| Upper explosion limits: | No data available |
| Flash point: | >23 °C |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| pH-Value: | No data available |
| Viscosity / kinematic: | No data available |
| Water solubility: | No data available |

Solubility in other solvents

No data available

| | |
|---|---|
| Partition coefficient n-octanol/water: | No data available |
| Vapour pressure: | No data available |
| Vapour pressure: | No data available |
| Density: | ~0,89 g/cm³ |
| Bulk density: | No data available |
| Relative vapour density: | No data available |

### 9.2. Other information

**Information with regard to physical hazard classes**

Explosive properties

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

| | |
|---|---|
| Sustaining combustion: | Sustaining combustion |

Self-ignition temperature

| | |
|---|---|
| Solid: | No data available |
| Gas: | No data available |

Oxidizing properties

No data available

**Other safety characteristics**

| | |
|---|---|
| Evaporation rate: | No data available |
| Solvent separation test: | No data available |
| Solvent content: | No data available |
| Solid content: | No data available |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| | No data available |
| Viscosity / dynamic: (at 20 °C) | No data available |
| Flow time: | No data available |

**Further Information**

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

In case of warming:

Vapours may form explosive mixtures with air.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Oxidising agent

Alkali metals

Alkaline earth metal,

Acid chlorides, inorganic
Reducing agent
Aluminium
chromium trioxide

**10.4. Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**10.5. Incompatible materials**

Plastic articles
various plastics

**10.6. Hazardous decomposition products**

SECTION 5: Firefighting measures

**Further information**

No data available

## SECTION 11: Toxicological information

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

**Toxicocinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

Harmful if swallowed.

**ATEmix calculated**

ATE (oral) 826,4 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No | Chemical name | | | | |
|---|---|---|---|---|---|
| | Exposure route | Dose | Species | Source | Method |
| 71-36-3 | butanol | | | | |
| | oral | LD50 ca. 2292 mg/kg | Rat | Study report (1967) | OECD Guideline 401 |
| | dermal | LD50 ca. 3430 mg/kg | Rabbit | Study report (1951) | OECD Guideline 402 |
| 64-19-7 | acetic acid | | | | |
| | oral | LD50 3310 mg/kg | Rat | J Ind Hyg Toxicol, Vol 23, PP 78-82 (194 | The sodium salt of acetic acid was admin |
| | inhalation (4 h) vapour | LC50 11,4 mg/l | Rat | Study report (1980) | OECD Guideline 403 |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes serious eye damage.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects 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**

May cause respiratory irritation. (butanol)
May cause drowsiness or dizziness. (butanol)

**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.

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

### 11.2. Information on other hazards

**Other information**

Vomiting
Observe risk of aspiration if vomiting occurs.
Liver and kidney damage

**Further information**

Risk of serious damage to eyes.
Irritant
corrosive
Vapours may cause drowsiness and dizziness.
Cough
Dyspnoea
Cardiac arrhythmias
Circulatory collapse
Vomiting
Inebriation
Dizziness
Anaesthetic state
Respiratory complaints

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | | | |
|---|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | | [h] \| [d] | Species | Source | Method |
| 71-36-3 | butanol | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 1376 | 96 h | Pimephales promelas | Study report (1998) | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 | 225 mg/l | 96 h | Pseudokirchneriella subcapitata | Study report (1998) | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | 1328 | 48 h | Daphnia magna | Study report (1998) | OECD Guideline 202 |
| | Crustacea toxicity | NOEC | 4,1 mg/l | 21 d | Daphnia magna | Study report (1996) | OECD Guideline 211 |
| 64-19-7 | acetic acid | | | | | | |
| | Acute fish toxicity | LC50 mg/l | > 1000 | 96 h | Oncorhynchus mykiss | Study report (2005) | other: SOP E257 |
| | Acute algae toxicity | ErC50 mg/l | > 1000 | 72 h | Skeletonema costatum | Study report (2005) | ISO 10253 |
| | Acute crustacea toxicity | EC50 mg/l | > 1000 | 48 h | Daphnia magna | Study report (1990) | OECD Guideline 202 |

### 12.2. Persistence and degradability

There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

| CAS No | Chemical name | Log Pow |
|---|---|---|
| 71-36-3 | butanol | 10 |
| 64-19-7 | acetic acid | -0,17 |

**BCF**

| CAS No | Chemical name | BCF | Species | Source |
|---|---|---|---|---|
| 71-36-3 | butanol | 3,16 | | QSAR (2017) |
| 64-19-7 | acetic acid | 3,16 | fish | Environ. Toxicol. Ch |

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

Avoid release to the environment.

**Further information**

Do not allow to enter into surface water or drains.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a physico-chemical treatment facility under observation of official regulations.
Do not empty into drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

## SECTION 14: Transport information

**Land transport (ADR/RID)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

## SECTION 15: Regulatory information

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

Information according to Directive 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

## SECTION 16: Other information

**Changes**

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,7,8,9,11,12,13,14,15.

**Abbreviations and acronyms**

Flam. Liq: Flammable liquid
Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
STOT SE: Specific target organ toxicity - single exposure

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

| Classification | Classification procedure |
|---|---|
| Flam. Liq. 3; H226 | On basis of test data |
| Acute Tox. 4; H302 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Dam. 1; H318 | Calculation method |
| STOT SE 3; H335 | Calculation method |
| STOT SE 3; H336 | Calculation method |

**Relevant H and EUH statements (number and full text)**

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.

| | |
|---|---|
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |

**Further Information**

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*