

#### Issue Date 25-Dec-2005

Revision Date 13-Jul-2023

Version 3.4

SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product Code(s) LCK381-1

#### Product Name LCK 381 TOC/COT, Indikatorküvette/Indicator Cuvette; 1/4

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

**Recommended Use** Water Analysis. Determination of Total Organic Carbon. Determination of carbonate.

Uses advised against Consumer use

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

Supplier HACH UK Laser House Ground Floor, Suite B Waterfront Quay, Salford Quays GB - Manchester, M50 3XW Tel. +44 (0) 161 872 1487 info-uk@hach.com

HACH Ireland Unit 34 GB Business Park Little Island IRL-Co. Cork T45 H681 Tel. +353 (0)146 02 522 info-ie@hach.com

#### 1.4. Emergency telephone number

UK: Chemtrec: +44 20 3807 3798 IE: National Poisons Information Centre (NPIC) 01 809 2566 (24/7)

### Section 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### 2.2. Label elements

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### **Precautionary statements** 2.3. Other hazards No information available.

#### PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT) This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Not applicable

#### 3.2 Mixtures

| Chemical name      | CAS No.<br>EC No.<br>Index No.          | Weight-% | Classification<br>according to<br>Regulation (EC) No.<br>1272/2008 [CLP] | Specific<br>concentration limit<br>(SCL)   | M-Factor | M-Factor<br>(long-term) |
|--------------------|---|----------|--|--|----------|-------------------------|
| Boric acid (H3BO3) | 10043-35-3<br>233-139-2<br>005-007-00-2 | <0.1%    | Repr. 1B - H360FD  | -  | -        | -                       |
| Sodium hydroxide   | 1310-73-2<br>215-185-5<br>011-002-00-6  | <0.1%    | Met. Corr. 1 - H290<br>Skin Corr. 1A - H314<br>Eye Dam. 1 - H318         | Eye Irrit. 2 ::<br>0.5%<=C<2%<br>Skin Corr. 1A ::<br>C>=5%<br>Skin Corr. 1B ::<br>2%<=C<5%<br>Skin Irrit. 2 ::<br>0.5%<=C<2% | -        | -                       |

#### Full text of H- and EUH-phrases: see section 16

No information available Acute Toxicity Estimate

| Chemical name                    | Oral LD50  | Dermal LD50   | Inhalation LC50 - 4<br>hour - dust/mist -<br>mg/L | Inhalation LC50 - 4<br>hour - vapour -<br>mg/L | Inhalation LC50 - 4<br>hour - gas - ppm |
|----------------------------------|------------|---------------|---|--|---|
| Boric acid (H3BO3)<br>10043-35-3 | 2660 mg/kg | None reported | None reported                                     | None reported                                  | None reported                           |

## Section 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

| General advice                     | Take off contaminated clothing and shoes immediately.  |
|------------------------------------|--|
| Inhalation                         | Remove to fresh air.   |
| Eye contact                        | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.  |
| Skin contact                       | Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.  |
| Ingestion                          | Rinse mouth.   |
| Self-protection of the first aider | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).<br>Ensure that medical personnel are aware of the material(s) involved, take precautions to<br>protect themselves and prevent spread of contamination. |
| 4.2. Most important symptoms and   | effects, both acute and delayed  |

| Symptoms No information available. |  |
|------------------------------------|--|
|------------------------------------|--|

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

**Note to doctors** Treat symptomatically.

## Section 5: FIREFIGHTING MEASURES

#### 5.1. Extinguishing media

| Suitable Extinguishing Media                                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Product itself does not burn. |
|--|---|
| Unsuitable extinguishing media                                 | No information available.   |
| 5.2. Special hazards arising from th                           | e substance or mixture  |
| Specific hazards arising from the chemical                     | Thermal decomposition can lead to release of irritating and toxic gases and vapours.  |
| 5.3. Advice for firefighters                                   |   |
| Special protective equipment and precautions for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.<br>Use personal protection equipment. |
| Additional information   | Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.                     |

## Section 6: ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Evacuate personnel **Personal precautions** to safe areas. For emergency responders Use personal protection recommended in Section 8. 6.2. Environmental precautions **Environmental precautions** Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information. 6.3. Methods and material for containment and cleaning up Methods for containment Prevent further leakage or spillage if safe to do so. Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal. Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations. 6.4. Reference to other sections Reference to other sections See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

| Advice on safe handling                          | Ensure adequate ventilation.  |
|--|---|
| General hygiene considerations                   | Take off all contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Barrier creams may help to protect the exposed areas of skin. |
| 7.2. Conditions for safe storage, inc            | cluding any incompatibilities   |
| Storage Conditions                               | Keep containers tightly closed in a cool, well-ventilated place.  |
| 7.3. Specific end use(s)                         |   |
| Specific use(s)<br>Risk Management Methods (RMM) | Analytical reagent.<br>The information required is contained in this Safety Data Sheet.   |

#### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

**Exposure Limits** 

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

| Chemical name                    | European Union | United Kingdom            | Ireland   |
|----------------------------------|----------------|---------------------------|---|
| Boric acid (H3BO3)<br>10043-35-3 | -              | -                         | TWA: 2 mg/m <sup>3</sup><br>STEL: 6 mg/m <sup>3</sup> |
| Sodium hydroxide<br>1310-73-2    | -              | STEL: 2 mg/m <sup>3</sup> | STEL: 2 mg/m <sup>3</sup>                             |

| Derived No Effect Level (DNEL)                       | No information available.   |
|--|---|
| Predicted No Effect Concentration (PNEC)             | No information available.   |
| Additional information                               | No information available.   |
| 8.2. Exposure controls                               |   |
| Engineering controls                                 | Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.   |
| Personal protective equipment<br>Eye/face protection | Wear safety glasses with side shields (or goggles).   |
| Hand protection                                      | Barrier creams may help to protect the exposed areas of skin. Wear suitable gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III acco. |

| Gloves   |   |                 |                                |  |
|--|---|-----------------|--------------------------------|--|
| Duration of contact  | PPE - Glove material  | Glove thickness | Break through time             |  |
| Long term (repeated)   | Wear protective Viton™<br>gloves  | 0,70 mm         | >480 minutes                   |  |
| Short term   | Wear protective nitrile rubber gloves   | 0,20 mm         | >30 minutes                    |  |
| Skin and body protection Avoid contact with eyes, skin and clothing. Wash contaminated clothing before reuse. Long sleeved clothing. |   |                 | ed clothing before reuse. Long |  |
| Respiratory protection   | Wear breathing apparatus if exposed to vapours/dusts/aerosols.  |                 | ols.                           |  |
| Recommended Filter type:   | ABEK-P3.  |                 |                                |  |
| General hygiene considerations   | Take off all contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Barrier creams may help to protect the exposed areas of skin. |                 |                                |  |
| Environmental exposure controls  | Do not allow into any sewer, on the ground or into any body of water.   |                 |                                |  |

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

| Physical state Liquid |                   |                  |
|-----------------------|-------------------|------------------|
| Colour blue           | Odour Odourless   |                  |
|                       |                   |                  |
|                       |                   |                  |
| Property              | Values            | Remarks • Method |
| Molecular weight      | No data available |                  |
| рН                    | 10                | @ 20 °C          |

| Melting point / freezing point                     | No data available             |         |
|--|-------------------------------|---------|
| Initial boiling point and boiling range            | No data available             |         |
| Evaporation rate                                   | No data available             |         |
| Vapour pressure                                    | No data available             |         |
| Relative vapor density                             | No data available             |         |
| Partition coefficient                              | No data available             |         |
| Soil Organic Carbon-Water Partition<br>Coefficient | No data available             |         |
| Autoignition temperature                           | No data available             |         |
| Decomposition temperature                          | No data available             |         |
| Dynamic viscosity                                  | No data available             |         |
| Kinematic viscosity<br>Relative density            | No data available<br>1.0 g/mL | @ 20 °C |

#### Solubility(ies)

## Water solubility

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---------------------------------|------------------|------------------------------|
| Completely soluble              | > 10000 mg/L     | 25 °C / 77 °F                |

#### Solubility in other solvents

| Chemical Name | Solubility classification | <u>Solubility</u> | Solubility Temperature   |
|---------------|---------------------------|-------------------|--------------------------|
| None reported | No information available  | No data available | No information available |

#### **Metal Corrosivity**

| Steel Corrosion Rate<br>Aluminum Corrosion Rate       | No data available<br>No data available |
|---|--|
| Explosive properties                                  |  |
| Upper explosion limit<br>Lower explosion limit        | No data available<br>No data available |
| Flammable properties                                  |  |
| Flash point   | No data available                      |
| Flammability  |  |
| Upper flammability limit:<br>Lower flammability limit | No data available<br>No data available |
| Oxidising properties                                  | No data available.                     |
| Bulk density  | No data available                      |

#### 9.2. Other information

No information available.

## Section 10: STABILITY AND REACTIVITY

| 10.1. Reactivity                      |  |
|---------------------------------------|--|
| Reactivity                            | No information available.                    |
| 10.2. Chemical stability              |  |
| Stability                             | Stable under normal conditions.              |
| 10.3. Possibility of hazardous reacti | ons  |
| Possibility of hazardous reactions    | None under normal processing.                |
| 10.4. Conditions to avoid             |  |
| Conditions to avoid                   | Extremes of temperature and direct sunlight. |
| 10.5. Incompatible materials          |  |
| Incompatible materials                | None known based on information supplied.    |
| 10.6. Hazardous decomposition pro     | ducts_                                       |

Hazardous Decomposition Products None known based on information supplied.

## Section 11: TOXICOLOGICAL INFORMATION

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

#### Acute toxicity

Based on available data, the classification criteria are not met

Mixture No data available.

Substance Test data reported below.

#### Oral Exposure Route:

| Chemical name      | Endpoint<br>type | Reported dose | Exposure<br>time | Toxicological effects | Key literature references and<br>sources for data |
|--------------------|------------------|---------------|------------------|-----------------------|---|
| Potassium chloride | Rat              | 2600 mg/kg    | None reported    | None reported         | IUCLID  |
|                    | LD50             |               |                  |                       |   |
| Boric acid (H3BO3) | Rat              | 2660 mg/kg    | None reported    | None reported         | IUCLID  |
|                    | LD50             |               |                  |                       |   |

#### Acute Toxicity Estimate (ATE)

#### Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity.

- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

#### Skin corrosion/irritation

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

Mixture No data available.

Substance

Test data reported below.

| Chemical name      | Test method | Species | Reported<br>dose | Exposure<br>time | Results                                | Key literature<br>references and<br>sources for data |
|--------------------|-------------|---------|------------------|------------------|--|--|
| Boric acid (H3BO3) | Draize Test | Rabbit  | 500 mg           | 24 hours         | Not corrosive or<br>irritating to skin | ECHA   |
| Sodium hydroxide   | Patch test  | Human   | 20 mg            | 24 hours         | Corrosive to skin                      | RTECS  |

#### Serious eye damage/eye irritation

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

Mixture No data available.

Substance

Test data reported below.

| Chemical name      | Test method | Species | Reported<br>dose | Exposure<br>time | Results                                | Key literature<br>references and<br>sources for data |
|--------------------|-------------|---------|------------------|------------------|--|--|
| Boric acid (H3BO3) | Draize Test | Rabbit  | 100 mg           | 24 hours         | Not corrosive or<br>irritating to eyes | ECHA   |
| Sodium hydroxide   | Draize Test | Rabbit  | 0.05 mg          | 24 hours         | Corrosive to eyes                      | RTECS  |

#### **Respiratory or skin sensitisation**

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

Mixture No data available.

Substance Test data reported below.

#### Skin Sensitization Exposure Route:

| Chemical name      | Test method                                 | Species    | Results                                   | Key literature references and<br>sources for data |
|--------------------|---|------------|---|---|
| Boric acid (H3BO3) | OECD Test No.<br>406: Skin<br>Sensitisation | Guinea pig | No sensitisation responses were observed. | ECHA  |

#### STOT - single exposure

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

Mixture No data available.

Substance

Test data reported below.

#### **Oral Exposure Route:**

| Chemical name      | Endpoint<br>type | Reported<br>dose | Exposure<br>time | Toxicological effects  | Key literature references and<br>sources for data |
|--------------------|------------------|------------------|------------------|--|---|
| Potassium chloride | Man<br>LD∟₀      | 20 mg/kg         | None reported    | None reported  | RTECS   |
| Boric acid (H3BO3) | Man<br>LD⊾₀      | 429 mg/kg        | None reported    | Kidney, Ureter, or Bladder<br>Changes in tubules (including<br>acute renal failure, acute tubular<br>necrosis) | RTECS   |

<u>STOT - repeated exposure</u> Based on available data, the classification criteria are not met.

Mixture No data available.

Test data reported below. Substance

#### **Oral Exposure Route:**

| Chemical name      | Endpoint<br>type | Reported dose | Exposure<br>time | Toxicological effects      | Key literature references and<br>sources for data |
|--------------------|------------------|---------------|------------------|----------------------------|---|
| Potassium chloride | Rat              | 75600 mg/kg   | 42 days          | Kidney, Ureter, or Bladder | RTECS   |
|                    | TDLo             |               |                  | Urine volume increased     |   |
| Boric acid (H3BO3) | Rat              | 100 mg/kg     | 730 days         | Nutritional and Gross      | ECHA  |
|                    | NOAEL            |               |                  | Metabolic                  |   |
|                    |                  |               |                  | Weight gain                |   |
|                    |                  |               |                  | Food intake                |   |

#### Inhalation (Dust/Mist) Exposure Route:

| Chemical name      | Endpoint<br>type | Reported dose         | Exposure<br>time | Toxicological effects                | Key literature references and<br>sources for data |
|--------------------|------------------|-----------------------|------------------|--------------------------------------|---|
| Boric acid (H3BO3) | Rat<br>NOAEC     | 470 mg/m <sup>3</sup> | 70 days          | No toxicological effects<br>observed | ECHA  |

#### Germ cell mutagenicity

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

Mixture invitro Data

No data available.

Substance invitro Data

Test data reported below.

| Chemical name      | Test                          | Cell Strain               | Reported dose | Exposure time | Results                                     | Key literature<br>references and<br>sources for data |
|--------------------|-------------------------------|---------------------------|---------------|---------------|---|--|
| Potassium chloride | Mutation in microorganisms    | Mouse<br>lymphocyte       | 2048 mmol/L   | None reported | Positive test<br>result for<br>mutagenicity | RTECS  |
| Boric acid (H3BO3) | Mutation in<br>microorganisms | Salmonella<br>typhimurium | 2.5 mg/plate  | None reported | Negative                                    | ECHA   |
| Thymol blue        | DNA adduct                    | Escherichia coli          | 0.05 mmol/L   | None reported | Positive test<br>result for<br>mutagenicity | RTECS  |

Mixture invivo Data

No data available.

Substance invivo Data

Test data reported below.

**Oral Exposure Route:** 

| Chemical name      | Test              | Species | Reported<br>dose | Exposure<br>time | Results                  | Key literature<br>references and<br>sources for data |
|--------------------|-------------------|---------|------------------|------------------|--------------------------|--|
| Potassium chloride | Unscheduled DNA   | Rat     | 1.5 mg/kg        | None reported    | Positive test result for | RTECS  |
|                    | synthesis         |         |                  |                  | mutagenicity             |  |
| Boric acid (H3BO3) | Micronucleus test | Mouse   | 3500 mg/kg       | 2 days           | Negative test result     | ECHA   |
|                    |                   |         |                  |                  | for mutagenicity         |  |

#### **Carcinogenicity**

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

Mixture No data available.

Substance No data available.

#### **Reproductive toxicity**

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

| Chemical name      | European Union |
|--------------------|----------------|
| Boric acid (H3BO3) | Repr. 1B       |

Mixture No data available.

Substance

Test data reported below.

#### Oral Exposure Route:

| Chemical name      | Endpoint<br>type | Reported dose | Exposure<br>time | Toxicological effects            | Key literature references and<br>sources for data |
|--------------------|------------------|---------------|------------------|----------------------------------|---|
| Boric acid (H3BO3) | Rat              | 52 mg/kg      | 26 weeks         | Paternal Effects                 | RTECS   |
|                    | TDLo             |               |                  | Spermatogenesis (including       |   |
|                    |                  |               |                  | genetic material, sperm          |   |
|                    |                  |               |                  | morphology, motility, and count) |   |

#### Inhalation (Dust/Mist) Exposure Route:

| Chemical name      | Endpoint<br>type | Reported dose | Exposure<br>time | Toxicological effects   | Key literature references and<br>sources for data |
|--------------------|------------------|---------------|------------------|---|---|
| Boric acid (H3BO3) | Human<br>TC∟₀    | 0.010 mg/L    | 10 years         | Paternal Effects Epididymis<br>Sperm duct Spermatogenesis<br>(including genetic material,<br>sperm morphology, motility, and<br>count) testes | RTECS   |

#### Aspiration hazard

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

#### 11.2. 11.2 Information on other hazards

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

**11.2.1. Endocrine disrupting properties Endocrine disrupting properties** No information available.

# 11.2.2. Other information Other adverse effects

No information available.

## Section 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

| Ecotoxicity               | Based on available data, the classification criteria are not met.           |
|---------------------------|---|
| Unknown aquatic toxicity  | Contains 0 % of components with unknown hazards to the aquatic environment. |
| <u>Mixture</u>            |   |
| Acute aquatic toxicity:   | No data available.  |
| Aquatic Chronic Toxicity: | No data available.  |
| Substance                 |   |
|                           | Test date concreted below   |

Acute aquatic toxicity:

Test data reported below.

Fish:

| Chemical name      | Exposure | Species             | Endpoint type | Reported dose | Key literature references and |
|--------------------|----------|---------------------|---------------|---------------|-------------------------------|
|                    | time     |                     |               |               | sources for data              |
| Potassium chloride | 96 hours | Pimephales promelas | LC50          | 880 mg/L      | IUCLID                        |
| Sodium hydroxide   | 96 hours | Oncorhynchus mykiss | LC50          | 45.4 mg/L     | IUCLID                        |

Crustacea:

| Chemical name    | Exposure<br>time | Species     | Endpoint type    | Reported dose | Key literature references and<br>sources for data |
|------------------|------------------|-------------|------------------|---------------|---|
| Sodium hydroxide | 48 Hours         | Daphnia sp. | EC <sub>50</sub> | 40.4 mg/L     | IUCLID  |

Aquatic Chronic Toxicity:

No data available.

#### 12.2. Persistence and degradability

MixtureNo data available.12.3. Bioaccumulative potentialMixture:No data available.Partition coefficientNo data available12.4. Mobility in soil

12.4. MODILLY III SOI

Soil Organic Carbon-Water Partition No data available Coefficient

#### 12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

| Chemical name      | PBT and vPvB assessment         |
|--------------------|---------------------------------|
| Boric acid (H3BO3) | The substance is not PBT / vPvB |
| Sodium hydroxide   | The substance is not PBT / vPvB |

#### 12.6. Endocrine disrupting properties

Endocrine Disruptor Information: This product does not contain any known or suspected endocrine disruptors

#### 12.7. Other adverse effects

| No information available.              |  |
|--|--|
| Ozone:                                 | Not applicable   |
| Ozone depletion potential (ODP):       | No information available   |
| S                                      | ection 13: DISPOSAL CONSIDERATIONS   |
| 13.1. Waste treatment methods          |  |
| Advice on Disposal                     |  |
| Waste from residues/unused<br>products | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Our local agencies will accept used cuvettes to ensure their proper disposal.  |
| Waste disposal number of waste fr      | om residues/unused products  |
| 160506                                 | WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste. |
| Waste disposal number of used pro      | oduct  |
| 160506                                 | WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste. |
| Contaminated packaging                 | Dispose of contents/containers in accordance with local regulations.   |
| Other Information                      | Do not reuse empty containers.   |

## Section 14: TRANSPORT INFORMATION

| 14.1  | UN number or ID number  | UN3316   |
|---|---|--|
| 14.2  | Proper shipping name  | Not regulated  |
| 14.3  | Transport hazard class(es)  | 9  |
| 14.4  | Packing Group   | Not regulated  |
| 14.5  |   | Not applicable   |
| 14.6  | Special precautions for user  | 251, 340   |
| E   | mS-No   | F-A, S-P   |
| 14.7.   | Transport in bulk according to  | Not applicable   |
| Anne  | x II of MARPOL and the IBC  |  |
| Code  | •   |  |
|   |   |  |
|   |   |  |
| ADR   |   |  |
|   | UN number or ID number  | UN3316   |
| 14.1<br>14.2                                      | Proper shipping name  | UN3316<br>CHEMICAL KIT                                     |
| 14.1<br>14.2                                      |   |  |
| 14.1<br>14.2<br>14.3                              | Proper shipping name  | CHEMICAL KIT   |
| 14.1<br>14.2<br>14.3<br>L<br>14.4                 | Proper shipping name<br>Transport hazard class(es)<br>abels<br>Packing Group  | CHEMICAL KIT<br>9  |
| 14.1<br>14.2<br>14.3<br>L<br>14.4                 | Proper shipping name<br>Transport hazard class(es)<br>abels   | CHEMICAL KIT<br>9<br>9                                     |
| 14.1<br>14.2<br>14.3<br>14.4<br>14.5<br>14.6      | Proper shipping name<br>Transport hazard class(es)<br>abels<br>Packing Group<br>Environmental hazards<br>Special precautions for user | CHEMICAL KIT<br>9<br>9<br>II<br>Not applicable<br>251, 340 |
| 14.1<br>14.2<br>14.3<br>14.4<br>14.5<br>14.6      | Proper shipping name<br>Transport hazard class(es)<br>abels<br>Packing Group<br>Environmental hazards                                 | CHEMICAL KIT<br>9<br>9<br>II<br>Not applicable             |
| 14.1<br>14.2<br>14.3<br>14.4<br>14.5<br>14.6<br>C | Proper shipping name<br>Transport hazard class(es)<br>abels<br>Packing Group<br>Environmental hazards<br>Special precautions for user | CHEMICAL KIT<br>9<br>9<br>II<br>Not applicable<br>251, 340 |

IMDG

#### <u>IATA</u>

| 14.1 UN number or ID number       | UN3316                               |
|-----------------------------------|--------------------------------------|
| 14.2 Proper shipping name         | Not regulated                        |
| 14.3 Transport hazard class(es)   | 9                                    |
| 14.4 Packing group                | II                                   |
| 14.5 Environmental hazards        | Not applicable                       |
| 14.6 Special precautions for user | See section 6-8 for more information |
| ERG Code                          | 9L                                   |

#### Additional information

This product forms part of a kit. Information in this section relates to the kit as a whole. If the item is not regulated, the Chemical Kit classification does not apply.

## Section 15: REGULATORY INFORMATION

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

#### European Union

| Chemical name                   | Restricted substance per REACH<br>Annex XVII | Substance subject to authorisation per<br>REACH Annex XIV |
|---------------------------------|--|---|
| Boric acid (H3BO3) - 10043-35-3 | 30.  |   |
| Sodium hydroxide - 1310-73-2    | 75.<br>75.                                   |   |

Persistent Organic Pollutants Not applicable

#### Dangerous substance category per Seveso Directive (2012/18/EU)

Non-controlled

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

#### Germany

Water hazard class (WGK)

non-hazardous to water (nwg)

| Chemical name      | French RG number    | Title |
|--------------------|---------------------|-------|
| Boric acid (H3BO3) | RG 5,RG 14,RG 15,RG | -     |
| 10043-35-3         | 15bis,RG 20bis      |       |
|                    | RG 20,RG 20bis,RG   |       |
|                    | 26,RG 34,RG 65      |       |

| International Inventories |          |
|---------------------------|----------|
| EINECS/ELINCS             | Complies |
| TSCA                      | Complies |
| DSL/NDSL                  | Complies |
| ENCS                      | Complies |
| IECSC                     | Complies |
|                           |          |

| KECL  | Complies |
|-------|----------|
| PICCS | Complies |
| AICS  | Complies |

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List ENCS - Japan Existing and New Chemical Substances IECSC - China Inventory of Existing Chemical Substances KECL - Korean Existing and Evaluated Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances AICS - Australian Inventory of Chemical Substances

#### 15.2. Chemical safety assessment

**Chemical Safety Report** Chemical safety assessments for substances in this mixture were not carried out.

| Section 16: OTHER INFORMATION   |  |  |  |  |
|---|--|--|--|--|
| Issue Date  | 25-Dec-2005  |  |  |  |
| Revision Date   | 13-Jul-2023  |  |  |  |
| Revision Note   | updated SDS sections:<br>3   |  |  |  |
| Key or legend to abbreviations and acronyms used in the safety data sheet |  |  |  |  |
| Legend  |  |  |  |  |
| **  | Hazard Designation   |  |  |  |
| ADN   | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieure                   |  |  |  |
| ADR   | European Agreement concerning the International Carriage of Dangerous Goods by Road  |  |  |  |
| ATE   | Acute Toxicity Estimate  |  |  |  |
| CAS   | Chemical Abstracts Service Number  |  |  |  |
| Ceiling   | Maximum limit value  |  |  |  |
| CLP   | Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No. 1272/2008]                                   |  |  |  |
| DNEL  | Derived No Effect Level (DNEL)   |  |  |  |
| EC  | European Community   |  |  |  |
| ECHA  | ECHA (The European Chemicals Agency)   |  |  |  |
| EC50  | Effective Concentration to 50% of a test population  |  |  |  |
| EEC   | European Economic Community  |  |  |  |
| EN  | European Standard  |  |  |  |
| IMDG  | International Maritime Dangerous Goods (IMDG)  |  |  |  |
| ΙΑΤΑ  | International Air Transport Association (IATA)   |  |  |  |
| IATA-DGR  | International Air Transport Association - Dangerous Goods Regulations  |  |  |  |
| ICAO  | International Civil Aviation Organization  |  |  |  |
| ICAO-TI   | International Civil Aviation Organization - Technical Instructions   |  |  |  |
| IUCLID  | IUCLID (The International Uniform Chemical Information Database)   |  |  |  |
| GHS   | Globally Harmonized System of Classification and Labelling of Chemicals  |  |  |  |
| LOAEL   | Lowest observed adverse effect level   |  |  |  |
| LOAEC   | Lowest observed adverse effect concentration   |  |  |  |
| LC50<br>LD50  | Lethal Concentration to 50% of a test population   |  |  |  |
| LOLI  | Lethal Dose to 50% of a test population (Median Lethal Dose)<br>LOLI (List of Lists - An International Chemical Regulatory Database) |  |  |  |
|   |  |  |  |  |

| МАК     | Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit<br>value, which relates to safe daily exposure levels to chemical substances |  |
|---------|--|--|
| NOAEL   | NOAEL (No observed adverse effect level)   |  |
| NOAEC   | No observed adverse effect concentration   |  |
| OSHA    | OSHA (Occupational Safety and Health Administration of the US Department of Labour)  |  |
| PEC     | Predicted Effect Concentration   |  |
| PNEC    | Predicted No Effect Concentration (PNEC)   |  |
| PBT     | Persistent, Bioaccumulative, and Toxic (PBT) Chemicals   |  |
| REACH   | Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No. 1907/2006])  |  |
| RTECS   | RTECS (Registry of Toxic Effects of Chemical Substances)   |  |
| TWA     | TWA (time-weighted average)  |  |
| SKN*    | Skin designation   |  |
| SKN+    | Skin sensitisation   |  |
| STEL    | STEL (Short Term Exposure Limit)   |  |
| STOT    | Specific Target Organ Toxicity   |  |
| STOT RE | Specific target organ toxicity — repeated exposure   |  |
| STOT SE | Specific target organ toxicity — single exposure   |  |
| SVHC    | Substances of Very High Concern  |  |
| TLV     | Threshold Limit Value  |  |
| TRGS    | Technical rules for hazardous substances, Germany  |  |
| TSCA    | Toxic Substances Control Act   |  |
| UN      | United Nations   |  |
| vPvB    | very persistent and very bioaccumulative   |  |
| VOC     | Volatile organic compounds   |  |
| AwSV    | Administrative regulation of water polluting substances, Germany   |  |

Key literature references and sources for data

See Section 11: TOXICOLOGICAL INFORMATION See Section 12: ECOLOGICAL INFORMATION

#### **Classification procedure**

| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used        |
|---|--------------------|
| Acute oral toxicity   | Calculation method |
| Acute dermal toxicity   | Calculation method |
| Acute inhalation toxicity - gas                                 | Calculation method |
| Acute inhalation toxicity - Vapour                              | Calculation method |
| Acute inhalation toxicity - dust/mist                           | Calculation method |
| Skin corrosion/irritation                                       | Calculation method |
| Serious eye damage/eye irritation                               | Calculation method |
| Carcinogenicity   | Calculation method |
| STOT - repeated exposure  | Calculation method |
| Acute aquatic toxicity  | Calculation method |
| Chronic aquatic toxicity  | Calculation method |
| Aspiration toxicity   | Calculation method |
| Ozone   | Calculation method |

#### Full text of H-Statements referred to under section 3

H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H360FD - May damage fertility. May damage the unborn child
H290 - May be corrosive to metals

Training AdviceTake note of Directive 98/24/EC on the protection of the health and safety of workers from<br/>the risks related to chemical agents at workRestrictions on useFor Laboratory Use Only.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

End of Safety Data Sheet