

# CO2 Hop Extract and De-oiled CO2 Hop Extract Safety Data Shoot

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 8/9/2023 Revision date: 8/9/2023 Supersedes version of: 9/27/2022 Version: 6.00

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

#### 1.1. Product identifier

Product form : Substance (UVCB)

Trade name : CO2 Hop Extract and De-oiled CO2 Hop Extract

Chemical name : Hop, Humulus lupulus, ext

EC-No. : 232-504-3 CAS-No. : 8060-28-4

REACH registration No. : 01-2120766018-52-xxxx

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

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Manufacturing of food

#### 1.2.2. Uses advised against

No additional information available

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

#### Manufacturer/Supplier

Simon H. Steiner, Hopfen, GmbH

Auhofstr. 18 84048 Mainburg Germany

T +49 8751 8605 0 - F +49 8751 8605 80

#### Supplier/Importer

Steiner Hops Ltd.

15A Henley Business park

Pirbright Road

GU3 2DX Normandy Guildford, Surrey

United Kingdom T +44 1992 572 331

#### Manufacturer

Hops Extract Corporation of America 305 N 2ND Ave Yakima 98902-2690 Yakima - WA

USA

T+1 509 249 1530

#### Manufacturer/Supplier

Hallertauer Hopfenveredelungsges. mbH

Auhofstr. 18 84048 Mainburg Germany

T +49 8751 8605 500 Supplier/Importer S. S. Steiner, Inc.

1 West Washington Avenue

WA 98903 Yakima

USA

T+1 509 453 4731

#### **Email competent person**

sds@kft.de

#### 1.4. Emergency telephone number

**Emergency number** : Simon H. Steiner, Hopfen, GmbH

Tel.: +49 8751 8605 0 (Montag – Freitag 08:00 – 17:00, Central European Time)

Hallertauer Hopfenveredelungsges. mbH

Tel.: +49 8751 8605 500 (Montag - Freitag 08:00 - 17:00, Central European Time)

Steiner Hops Ltd.

Phone: +44 1992 572 331 (Monday to Friday 8.00-17.00, Greenwich Mean Time)

S. S. Steiner, Inc.

Phone: +1 509 453 4731 (Monday to Friday 8.00-17.00, Pacific Time Zone)

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#### **SECTION 2: Hazards identification**

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

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2
H315
Serious eye damage/eye irritation, Category 2
H319
Skin sensitisation, Category 1
H317

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

#### Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Causes skin irritation. Causes serious eye irritation.

#### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) : H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P261 - Avoid breathing mist, vapours, spray.

P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective clothing, protective gloves, eye protection.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

| Component   |  |  |
|---|--|--|
| hop oil (8007-04-3)   | PBT: not relevant – no registration required vPvB: not relevant – no registration required   |  |
| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (468-28-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |  |

#### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Substance type : UVCB

Chemical name : Hop, Humulus lupulus, ext

CAS-No. : 8060-28-4 EC-No. : 232-504-3

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| Name   | Product identifier  | %      | Classification according to<br>Regulation (EC) No. 1272/2008<br>[CLP]  |
|--|---|--------|--|
| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (Natural component) | CAS-No.: 468-28-0<br>EC-No.: 207-405-3<br>REACH-no: 01-2120766877-<br>32-0001 | ≤ 30   | Acute Tox. 4 (Oral), H302 (ATE=700 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 |
| hop oil<br>(Natural component)   | CAS-No.: 8007-04-3<br>EC-No.: 640-023-9                                       | 3 – 12 | Flam. Liq. 3, H226<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412   |

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

#### 3.2. Mixtures

Not applicable

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash

occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact : May cause an allergic skin reaction. Irritation.

Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

#### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam.

Carbon dioxide.

Unsuitable extinguishing media : Strong water jet.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be

done according to official regulations.

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#### **SECTION 6: Accidental release measures**

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, vapours,

spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters.

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

Methods for cleaning up : Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling)

and collect in suitable container for disposal.

Other information : Disposal must be done according to official regulations.

#### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid

contact with skin and eyes. Avoid breathing mist, vapours, spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Contaminated work clothing should not be allowed out of the workplace. Wash

contaminated clothing before reuse.

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

Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool.

Maximum storage period :  $\approx$  8 years Storage temperature : < 10 °C

Information about storage in one common storage : Keep away from food, drink and animal feeding stuffs.

facility

#### 7.3. Specific end use(s)

No additional information available

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

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#### 8.1.4. DNEL and PNEC

| DNEE did i NEO                            |  |  |  |
|---|--|--|--|
| Hop, Humulus lupulus, ext (8060-28-4)     | Hop, Humulus lupulus, ext (8060-28-4)                          |  |  |
| DNEL/DMEL (Workers)                       |  |  |  |
| Long-term - systemic effects, dermal      | 6 mg/kg bodyweight/day   |  |  |
| Long-term - systemic effects, inhalation  | 21 mg/m³   |  |  |
| DNEL/DMEL (General population)            |  |  |  |
| Long-term - systemic effects, inhalation  | 10 mg/m³   |  |  |
| Long-term - systemic effects, dermal      | 3 mg/kg bodyweight/day   |  |  |
| PNEC (Water)                              |  |  |  |
| PNEC aqua (freshwater)                    | 0.058 mg/l   |  |  |
| PNEC aqua (marine water)                  | 0.0058 mg/l  |  |  |
| PNEC aqua (intermittent, freshwater)      | 0.058 mg/l   |  |  |
| PNEC aqua (intermittent, marine water)    | 0.0058 mg/l  |  |  |
| PNEC (STP)                                |  |  |  |
| PNEC sewage treatment plant               | 10 mg/l  |  |  |
| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2- | yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (468-28-0) |  |  |
| DNEL/DMEL (Workers)                       |  |  |  |
| Long-term - systemic effects, dermal      | 6 mg/kg bodyweight/day   |  |  |
| Long-term - systemic effects, inhalation  | 21 mg/m³   |  |  |
| DNEL/DMEL (General population)            |  |  |  |
| Long-term - systemic effects, inhalation  | 10 mg/m³   |  |  |
| Long-term - systemic effects, dermal      | 3 mg/kg bodyweight/day   |  |  |
| PNEC (Water)                              |  |  |  |
| PNEC aqua (freshwater)                    | 1.87 µg/L  |  |  |
| PNEC aqua (marine water)                  | 0.187 μg/L   |  |  |
| PNEC aqua (intermittent, freshwater)      | 1.87 μg/L  |  |  |
| PNEC aqua (intermittent, marine water)    | 0.187 μg/L   |  |  |
| PNEC (STP)                                |  |  |  |
| PNEC sewage treatment plant               | 10 mg/l  |  |  |
|   |  |  |  |

#### 8.1.5. Control banding

No additional information available

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#### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

#### Eve protection:

Wear closed safety glasses. ISO 16321-1

#### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing. EN ISO 13688. EN 13034

#### Hand protection:

In case of repeated or prolonged contact wear gloves. Chemically resistant protective gloves. Nitrile rubber. ISO 374-1. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Breathing apparatus with filter. Filter A (colour code: brown). EN 143. .

Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

#### **Environmental exposure controls:**

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

#### **SECTION 9: Physical and chemical properties**

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

Physical state : Liquid

Colour : Slightly yellow to green. amber.

Appearance : Viscous.
Odour
Odour threshold : Not available
Melting point : Not available
Freezing point : Not available

Boiling point : 100 °C (DIN EN ISO 3679)

Flammability : Not applicable

Explosive properties : Product is not explosive.

Oxidising properties : Non oxidizing.

Explosive limits : Not available

Lower explosion limit : Not available

Upper explosion limit : Not available

Flash point : > 100 °C (DIN EN ISO 3679)

Auto-ignition temperature : Not available Decomposition temperature : Not available pH : 4 (3.5 – 4.5)

Viscosity, kinematic : Not available

Viscosity, dynamic : 200 – 400 mPa·s (45°C)

Solubility : Not available

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Partition coefficient n-octanol/water (Log Kow) : Not available
Vapour pressure : Not available
Vapour pressure at 50°C : Not available
Density : 0.9 - 1 g/ml (20°C)
Relative density : Not available
Relative vapour density at 20°C : Not available
Particle characteristics : Not applicable

#### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

#### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

No additional information available

Respiratory or skin sensitisation

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

#### **SECTION 11: Toxicological information**

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

| Hop, Humulus lupulus, ext (8060-28-4)   |   |  |
|---|---|--|
| LD50 oral   | > 2000 mg/kg bodyweight                               |  |
| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (468-28-0) |   |  |
| LD50 oral rat   | 700 mg/kg bodyweight                                  |  |
| Skin corrosion/irritation   | : Causes skin irritation.<br>pH: 4 (3.5 – 4.5)        |  |
| Serious eye damage/irritation   | : Causes serious eye irritation.<br>pH: 4 (3.5 – 4.5) |  |

: May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

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STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

#### 11.2. Information on other hazards

No additional information available

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term

: Not classified (Based on available data, the classification criteria are not met)

(acute)

Hazardous to the aquatic environment, long-term

: Not classified. (Based on available data, the classification criteria are not met)

(chronic)

| Hop, Humulus lupulus, ext (8060-28-4) |  |
|---------------------------------------|--|
| EC50 - Crustacea [1]                  | > 5.8 mg/l (48 h; Daphnia magna; (OECD 202 method))                  |
| ErC50 algae                           | 52.5 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method)) |

#### 12.2. Persistence and degradability

| Hop, Humulus lupulus, ext (8060-28-4)   |   |
|---|---|
| Persistence and degradability   | Readily biodegradable, failing 10-d window. |
| Biodegradation  | 26 % (28 d; (OECD 301D method))             |
| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (468-28-0) |   |
| Persistence and degradability   | Readily biodegradable, failing 10-d window. |
| Biodegradation 26 % (28 d; (OECD 301D method))  |   |

#### 12.3. Bioaccumulative potential

| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (468-28-0) |  |
|---|--|
| Partition coefficient n-octanol/water (Log Pow)   | 4 – 5.5 (40 °C; pH 7; (OECD 117 method)) |

#### 12.4. Mobility in soil

| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (468-28-0) |   |  |
|---|---|--|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc)  | 2.7 – 2.9 (Quantitative structure-activity relationship (QSAR)) |  |

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

| Hop, Humulus lupulus, ext (8060-28-4)  |  |
|--|--|
| This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  |  |
| This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |  |

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| Component   |  |  |
|---|--|--|
| hop oil (8007-04-3)   | PBT: not relevant – no registration required vPvB: not relevant – no registration required   |  |
| 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (468-28-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |  |

#### 12.6. Endocrine disrupting properties

No additional information available

#### 12.7. Other adverse effects

Other adverse effects : No additional information available.

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste treatment methods

: Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.

Product/Packaging disposal recommendations HP Code

: Recycle or dispose of in compliance with current legislation.

: HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

#### **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR                          | IMDG          | IATA          | ADN           | RID           |
|------------------------------|---------------|---------------|---------------|---------------|
| 14.1. UN number or ID n      | number        |               |               |               |
| Not regulated                | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.2. UN proper shippin      | g name        |               |               |               |
| Not regulated                | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard       | class(es)     |               |               |               |
| Not regulated                | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group          |               |               |               |               |
| Not regulated                | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental haz      | zards         |               |               |               |
| Not regulated                | Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information | on available  | 1             |               | 1             |

#### 14.6. Special precautions for user

#### **Overland transport**

Not regulated

#### Transport by sea

Not regulated

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#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

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

Not applicable

#### **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

Other information, restriction and prohibition regulations

: Take note of Directive 94/33/EC on the protection of young people at work.

#### **REACH Annex XVII (Restriction List)**

| EU restriction list (REACH Annex XVII) |  |  |
|--|--|--|
| Reference code Applicable on           |  |  |
| 3(a)                                   | hop oil  |  |
| 3(b)                                   | Hop, Humulus lupulus, ext; hop oil; 3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one |  |
| 3(c)                                   | hop oil  |  |
| 40.                                    | hop oil  |  |

#### **REACH Annex XIV (Authorisation List)**

Not listed on REACH Annex XIV (Authorisation List)

#### **REACH Candidate List (SVHC)**

Not listed on the REACH Candidate List

#### **PIC Regulation (Prior Informed Consent)**

Not listed on the PIC list (Regulation EU 649/2012)

#### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

#### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

#### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### **Drug Precursors Regulation (273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

#### Germany

**Employment restrictions** 

: Employment prohibitions or restrictions on the protection of young people at work according to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.

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National Rules and Recommendations : TRGS 400: Risk Assessment for Activities involving Hazardous Substances.

TRGS 401: Risks resulting from skin contact - identification, assessment, measures.

TRGS 510: Storage of hazardous substances in non-stationary containers.

TRGS 520: Construction and operation of collection points and temporary storage for small  $\,$ 

amounts of hazardous waste.

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 6390). Storage class (LGK, TRGS 510) : LGK 10 - Combustible liquids.

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **SECTION 16: Other information**

| Indication of changes |                                |          |          |  |
|-----------------------|--------------------------------|----------|----------|--|
| Section               | Changed item                   | Change   | Comments |  |
|                       | General revision               |          |          |  |
| 1.1                   | REACH registration No.         | Added    |          |  |
| 2.2                   | Precautionary statements (CLP) | Modified |          |  |
| 8.1                   | DNEL and PNEC                  | Added    |          |  |
| 8.1                   | PNEC                           | Modified |          |  |
| 9.1                   | Flash point                    | Modified |          |  |
| 9.1                   | Boiling point                  | Added    |          |  |
| 12.2                  | Persistence and degradability  | Added    |          |  |
| 15.1                  | Water hazard class (WGK)       | Modified |          |  |

| Abbreviations and acronyms: |   |  |
|-----------------------------|---|--|
| DPD                         | Dangerous Preparations Directive 1999/45/EC   |  |
| DSD                         | Dangerous Substances Directive 67/548/EEC   |  |
| ADN                         | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |  |
| ADR                         | European Agreement concerning the International Carriage of Dangerous Goods by Road             |  |
| ATE                         | Acute Toxicity Estimate   |  |
| BCF                         | Bioconcentration factor   |  |
| CLP                         | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                     |  |
| DMEL                        | Derived Minimal Effect level  |  |
| DNEL                        | Derived-No Effect Level   |  |
| EC50                        | Median effective concentration  |  |
| IARC                        | International Agency for Research on Cancer   |  |
| IATA                        | International Air Transport Association   |  |
| IMDG                        | International Maritime Dangerous Goods  |  |
| LC50                        | Median lethal concentration   |  |
| LD50                        | Median lethal dose  |  |
| LOAEL                       | Lowest Observed Adverse Effect Level  |  |
| NOAEC                       | No-Observed Adverse Effect Concentration  |  |
| NOAEL                       | No-Observed Adverse Effect Level  |  |

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| NOEC    | No-Observed Effect Concentration  |
|---------|---|
| OECD    | Organisation for Economic Co-operation and Development  |
| PBT     | Persistent Bioaccumulative Toxic  |
| PNEC    | Predicted No-Effect Concentration   |
| REACH   | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID     | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |
| SDS     | Safety Data Sheet   |
| STP     | Sewage treatment plant  |
| TLM     | Median Tolerance Limit  |
| vPvB    | Very Persistent and Very Bioaccumulative  |
| CAS-No. | Chemical Abstract Service number  |

Data sources : Information provided by the manufacturer. European Chemicals Agency,

http://echa.europa.eu/.

Department issuing data specification sheet:

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Other information : This safety data sheet is for informational purposes only and does not fully comply with

national legal requirements. The national distributor is responsible for a legally compliant safety data sheet. A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis. Version/s 1.00-5.00 is/are not

available in this language.

| Full text of H- and EUH-statements: |   |  |
|-------------------------------------|---|--|
| Acute Tox. 4 (Dermal)               | Acute toxicity (dermal), Category 4                               |  |
| Acute Tox. 4 (Oral)                 | Acute toxicity (oral), Category 4                                 |  |
| Aquatic Chronic 3                   | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |  |
| Asp. Tox. 1                         | Aspiration hazard, Category 1                                     |  |
| Eye Irrit. 2                        | Serious eye damage/eye irritation, Category 2                     |  |
| Flam. Liq. 3                        | Flammable liquids, Category 3                                     |  |
| H226                                | Flammable liquid and vapour.                                      |  |
| H302                                | Harmful if swallowed.   |  |
| H304                                | May be fatal if swallowed and enters airways.                     |  |
| H312                                | Harmful in contact with skin.                                     |  |
| H315                                | Causes skin irritation.   |  |
| H317                                | May cause an allergic skin reaction.                              |  |
| H319                                | Causes serious eye irritation.                                    |  |
| H412                                | Harmful to aquatic life with long lasting effects.                |  |
| Skin Irrit. 2                       | Skin corrosion/irritation, Category 2                             |  |
| Skin Sens. 1                        | Skin sensitisation, Category 1                                    |  |

KFT SDS EU 00

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.