

### SECTION 1: Identification

#### 1.1. Identification

Trade name : Ethanol-Extract, Total Resin Extract  
 Chemical name : Hop, Humulus lupulus, ext  
 CAS-No. : 8060-28-4

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Manufacturing of food

#### 1.3. Supplier

##### Manufacturer/Supplier/Importer

S. S. Steiner, Inc.  
 655 Madison Avenue  
 New York, NY 10065 - USA  
 T +1 212 838 8900

##### Email competent person

sds@kft.de

##### Manufacturer/Supplier/Importer

Simon H. Steiner, Hopfen, GmbH  
 Auhofstr. 18  
 Mainburg, 84048 - Germany  
 T +49-(0)8751-8605-0 - F +49-(0)8751-8605-80

##### Supplier/Importer

Steiner Hops Ltd.  
 185-189 High St  
 Epping, Essex CM16 4BL - United Kingdom

#### 1.4. Emergency telephone number

Emergency number : S. S. Steiner, Inc.  
 Phone: +1 212 838 8900 (Monday – Friday 08.00 – 17.00, Eastern Time Zone)

Simon H. Steiner, Hopfen, GmbH  
 Tel.: +49-8751-8605-0 (Monday – Friday 08:00 – 17:00, Central European Time)

Steiner Hops Ltd.  
 Phone: +44 1992 572 331 (Monday – Friday 08.00 – 17.00, Greenwich Mean Time)

### SECTION 2: Hazard(s) identification

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

##### GHS-US classification

Acute toxicity (oral), Category 4 H302 Harmful if swallowed.  
 Carcinogenicity, Category 1A H350 May cause cancer.

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H302 - Harmful if swallowed.  
 H350 - May cause cancer.

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P270 - Do not eat, drink or smoke when using this product.  
 P280 - Wear protective clothing, protective gloves, eye protection, face protection.  
 P301+P312 - If swallowed: Call a POISON CENTER, a doctor if you feel unwell  
 P330 - Rinse mouth.  
 P405 - Store locked up.

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### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Harmful to aquatic life with long lasting effects.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : Multi-constituent  
Chemical name : Hop, Humulus lupulus, ext  
CAS-No. : 8060-28-4

Name	Product identifier	%	GHS-US classification
3,5-dihydroxy-2,6,6-tris(3-methylbuten-2-yl)-4-(3-methyl-1-oxobutyl)cyclohexa-2,4-dien-1-one (Component)	(CAS-No.) 468-28-0	15-30	Acute Tox. 3 (Oral), H301
hop oil (Component)	(CAS-No.) 8007-04-3	3-12	Flam. Liq. 3, H226 Asp. Tox. 1, H304
ethanol (Component)	(CAS-No.) 64-17-5	<0,3	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 1A, H350

Full text of hazard classes and H-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 : Call a poison center or a doctor if you feel unwell.  
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.  
First-aid measures after eye contact : Rinse eyes with water as a precaution.  
First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

No additional information available

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use fire fighting measures suiting the environment. Water spray. Dry powder. Foam. Carbon dioxide.  
Unsuitable extinguishing media : Strong water jet.

### 5.2. Specific hazards arising from the chemical

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

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool closed containers exposed to fire with water spray.  
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.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

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### 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. Notify authorities if product enters sewers or public waters.

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

Methods for cleaning up : Cover spill with non combustible material, e.g.: sand/earth. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify authorities if product enters sewers or public waters.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Always wash hands after handling the product.

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

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Maximum storage period : ≈ 8 year(s)

Storage temperature : < 50 °F

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

ethanol (64-17-5)		
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Chemically resistant protective gloves. 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

#### Eye protection:

Wear closed safety glasses.

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Filter type: P1.

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### SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Viscous.
Colour	: Green
Odour	: characteristic
Odour threshold	: No data available
pH	: 5.7 - 6.7
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 296 °F
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: ≈ 1 g/ml (68°F)
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 400 - 1000 mPa.s (113°F)
Explosive limits	: No data available
Explosive properties	: Product is not explosive. Explosive vapour/air mixtures may be formed.
Oxidising properties	: No data available

#### 9.2. Other information

Other properties : 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. To avoid thermal decomposition, do not overheat.

#### 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

#### 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 toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

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ATE US (oral)	333 mg/kg bodyweight
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<b>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)</b>	
LD50 oral rat	100 mg/kg bodyweight

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 5.7 - 6.7
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 5.7 - 6.7
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: May cause cancer.

<b>ethanol (64-17-5)</b>	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (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)

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

<b>ethanol (64-17-5)</b>	
LC50 fish 1	14200 mg/l (96 h; Pimephales promelas; US EPA method E03-05)
EC50 Daphnia 1	5012 mg/l (48 h; Ceriodaphnia dubia; ASTM E729-80)
NOEC chronic fish	250 mg/l (OECD 212 method)
NOEC chronic crustacea	2 mg/l (10d)

### 12.2. Persistence and degradability

<b>ethanol (64-17-5)</b>	
Persistence and degradability	Readily biodegradable.
Biodegradation	97 % (28 d)

### 12.3. Bioaccumulative potential

<b>ethanol (64-17-5)</b>	
Log Kow	-0.31
Bioaccumulative potential	Bioaccumulation unlikely.

### 12.4. Mobility in soil

<b>ethanol (64-17-5)</b>	
Ecology - soil	No additional information available.

### 12.5. Other adverse effects

Other adverse effects : No additional information available.

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

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

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not applicable

#### Transportation of Dangerous Goods

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

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Manufacturing of food

#### 15.2. International regulations

##### ethanol (64-17-5)

Listed on IARC (International Agency for Research on Cancer)

#### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: Other information

Revision date : 01/22/2018

Data sources : Information provided by the manufacturer.

Department issuing data specification sheet: : KFT Chemieservice GmbH  
Im Leuschnerpark, 3 64347 Griesheim  
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### Full text of H-statements:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H350	May cause cancer.

### Abbreviations and acronyms:

ATE	Acute Toxicity Estimate
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet

### Indication of changes:

General revision. Identification.

Section	Changed item	Change	Comments
2.1	GHS-US classification	Modified	
2.2	Precautionary statements	Modified	
3	Composition	Modified	

KFT SDS US 00

*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*