

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

1.1 Product identifier

Trade name/designation

4020000 Hardwood lye

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

Relevant identified uses

Etchant and acids

1.3 Details of the supplier of the safety data sheet

Supplier

AURO Pflanzenchemie AG
Alte Frankfurter Straße 211 A Telephone: +49 531 28141-0
38122 Braunschweig Telefax: +49 531 28141-72
Germany E-mail: info@auro.de
Website: www.auro.de

Department responsible for information

E-mail (competent person) msds@auro.de

1.4 Emergency telephone number

Emergency telephone number: +44 1544388535
Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2 Label elements

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

Hazard pictograms

not applicable

Signal word

not applicable

Hazard statements

not applicable

Precautionary statements

not applicable

Hazard components for labelling

not applicable

* Supplemental hazard information

EUH208 Contains Orange, sweet, ext.. May produce an allergic reaction.
EUH210 Safety data sheet available on request.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients.

3.2 Mixtures

Description

Hazardous ingredients

CAS No. EC No. Index No.	Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP]	weight-%
* 5949-29-1 201-069-1	Zitronensäure Monohydrat 01-2119457026-42	3,00 < 5,00

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-	Eye Irrit. 2 H319 ATE (oral): > 2,000 mg/kg ATE (oral): > 2,000 mg/kg	
* 64-17-5 200-578-6 603-002-00-5	ethanol; ethyl alcohol 01-2119457610-43-xxxx Flam. Liq. 2 H225 / Eye Irrit. 2 H319 Specific concentration limit (SCL) Eye Irrit. 2 H319: >= 50,00 ATE (oral): = 10,470 mg/kg ATE (dermal): > 2,000 mg/kg ATE (inhalative): = 124.7 mg/L (4 h) ATE (oral): = 10,470 mg/kg ATE (dermal): > 2,000 mg/kg ATE (inhalative): = 124.7 mg/L (4 h)	3,00 < 5,00
* 8028-48-6 232-433-8 -	Orange, sweet, ext. 01-2119493353-35-0003 Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411 ATE (oral): > 5,000 mg/kg ATE (oral): > 5,000 mg/kg	0,150 < 0,200

Remark

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

- * In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO2), Powder, spray mist, (water)

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapours.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

For cleaning up

Clean using cleansing agents. Do not use solvents.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: refer to section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. Personal protection equipment: see section 8 Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Advices on general occupational hygiene

When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Storage class

LGK12 - non-combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3 Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	Source	Long-term /short-term (Spitzenbegrenzung)
* 64-17-5	ethanol; ethyl alcohol	WEL	1,920 / - (-) mg/m ³

Additional information

Long-term: Long-term occupational exposure limit value

short-term: short-term occupational exposure limit value

Biological limit values

No data available

* DNEL worker

CAS No.	Substance name	DNEL type	DNEL value
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*	64-17-5	ethanol; ethyl alcohol	Acute - inhalation, local effects	1,900 mg/m ³
*	64-17-5	ethanol; ethyl alcohol	Long-term - dermal, systemic effects	343 mg/kg bw
*	64-17-5	ethanol; ethyl alcohol	Long-term – inhalation, systemic effects	950 mg/m ³

DNEL Consumer

	CAS No.	Substance name	DNEL type	DNEL value
*	64-17-5	ethanol; ethyl alcohol	Acute - inhalation, local effects	950 mg/m ³
*	64-17-5	ethanol; ethyl alcohol	Long-term - dermal, systemic effects	206 mg/kg bw
*	64-17-5	ethanol; ethyl alcohol	Long-term – inhalation, systemic effects	114 mg/m ³
*	64-17-5	ethanol; ethyl alcohol	Long-term - oral, systemic effects	87 mg/kg bw

PNEC

	CAS No.	Substance name	PNEC type	PNEC Value
*	64-17-5	ethanol; ethyl alcohol	aquatic, freshwater	0.96 mg/L
*	64-17-5	ethanol; ethyl alcohol	aquatic, marine water	0.79 mg/L
*	64-17-5	ethanol; ethyl alcohol	sediment, freshwater	3.6 mg/kg
*	64-17-5	ethanol; ethyl alcohol	soil	0.63 mg/kg
*	64-17-5	ethanol; ethyl alcohol	sewage treatment plant	580 mg/L

8.2 Exposure controls

Provide good ventilation. This can be achieved with local or room suction.

Personal protection equipment

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

Suitable material: NBR (Nitrile rubber)
Thickness of the glove material \geq 0.4 mm
Breakthrough time \geq 480 min

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. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.
Recommended glove articles: EN ISO 374

Skin protection

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

* Eye glasses with side protection: EN 166

Body protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	refer to label
Odour	characteristic
pH	2.5
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	not determined

flammability	not applicable
Lower explosion limit at 20°C	not determined
Upper explosion limit at 20°C	not determined
Vapour pressure at 20°C	24.819 mbar
Relative vapour density	not applicable
Density at 20 °C	1.0 kg/l
Water solubility at 20°C	partially soluble
Partition coefficient: n-octanol/water	see section 12
Ignition temperature in °C	not determined
Decomposition temperature	not determined
Viscosity at 20 °C:	< 20 mm ² /s

9.2 Other information

not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

- * Hazardous decomposition byproducts may form with exposure to high temperatures e.g.: Carbon dioxide (CO₂), Carbon monoxide, smoke.

SECTION 11: Toxicological information

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

Acute toxicity

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

* **Orange, sweet, ext.**

LD50: oral (Rat): > 5,000 mg/kg

* LD50: oral (Rat): > 5,000 mg/kg

* **Zitronensäure Monohydrat**

LD50: oral (Rat): > 2,000 mg/kg

* LD50: oral (Rat): > 2,000 mg/kg

* **ethanol; ethyl alcohol**

LD50: oral (Rat): = 10,470 mg/kg

* LD50: dermal (Rabbit): > 2,000 mg/kg

* LC50: inhalative (Rat): = 124.7 mg/L (4 h)

* LD50: oral (Rat): = 10,470 mg/kg

* LD50: dermal (Rabbit): > 2,000 mg/kg

* LC50: inhalative (Rat): = 124.7 mg/L (4 h)

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Respiratory or skin sensitisation

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

* **Overall assessment on CMR properties**

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

STOT-single exposure

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

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.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

11.2 Information on other hazards

* **Endocrine disrupting properties**

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

SECTION 12: Ecological information

12.1 Toxicity

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

Acute (short-term) fish toxicity

* **Orange, sweet, ext.**

LC50: (Pimephales promelas (fathead minnow)): = 0.7 mg/L (96 h)
Method: OECD 203

Acute (short-term) toxicity to algae and cyanobacteria

- * ErC50: (Desmodesmus subspicatus): = 150 mg/L (72 h)
Method: OECD 201

Acute (short-term) toxicity to crustacea

- * EC50 (Daphnia magna (Big water flea)): = 0.67 mg/L (48 h)
Method: OECD 202

12.2 Persistence and degradability

* **Orange, sweet, ext.**

Biodegradation = 72 % (28 d)

12.3 Bioaccumulative potential

- * Partition coefficient: n-octanol/water ≥ 4 (Orange, sweet, ext.)
- * Partition coefficient: n-octanol/water = -0.35 (ethanol; ethyl alcohol)

12.4 Mobility in soil

No information available.

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

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Waste codes/waste designations according to EWC/AVV

200114* - Acids

Other disposal recommendations

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1 UN number or ID number

not applicable

14.2 UN proper shipping name

Land transport (ADR/RID)

No dangerous good in sense of these transport regulations.

Sea transport (IMDG)

No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

not applicable

14.4 Packing group

not applicable

14.5 Environmental hazards

Land transport (ADR/RID) not applicable

Sea transport (IMDG) not applicable

14.6 Special precautions for user

* Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

14.8 Additional information

Land transport (ADR/RID)

not applicable

Sea transport (IMDG)

not applicable

Air transport (ICAO-TI / IATA-DGR)

not applicable

SECTION 15: Regulatory information

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

EU legislation

Restrictions of occupation

* Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

* VOC value: 54 g/l

* **Directive 2004/42/EC on the limitation of emissions of volatile organic compounds**

* VOC limit value: 2004/42/IIA(f): 130 g/l (2010)

* Maximum VOC content of the product in a ready to use condition: 54

This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

Hazard categories / Named dangerous substances

This product is not classified according to Directive 2012/18/EU.

National regulations

* Observe in addition any national regulations!

15.2 Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

	REACH No.	Substance name	CAS No. EC No.
*	01-2119493353-35-0003	Orange, sweet, ext.	8028-48-6 232-433-8
*	01-2119457026-42	Zitronensäure Monohydrat	5949-29-1 201-069-1
*	01-2119457610-43-xxxx	ethanol; ethyl alcohol	64-17-5 200-578-6

SECTION 16: Other information

List of relevant hazard statements and/or precautionary statements from sections 2 to 15

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

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

not applicable

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
BLV: Biological limit values
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
CMR: Carcinogenic, Mutagenic and Reprotoxic
DIN: German Institute for Standardization / German industrial standard
DNEL: Derived No-Effect Level
EAKV: European Waste Catalogue Directive
EC: Effective Concentration
EC: European Community
EN: European Standard
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
LC: Lethal Concentration
LD: Lethal Dose
MWC: Maximum workplace concentration
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD: Organisation for Economic Cooperation and Development
PBT: persistent, bioaccumulative, toxic
PNEC: Predicted No Effect Concentration
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent and very bioaccumulative

Indication of changes

* Data changed compared with the previous version.