

Product: AMALGEROL
Version: 2015/2
Revised on: 16.06.2015
Page: 1/7

1. Identification of the substance/mixture and of the company/undertaking

- | | |
|--|---|
| 1.1 Product identifier | Trade name: AMALGEROL |
| 1.2 Relevant identified uses of the substance or mixture and uses advised against | Bio-stimulant and soil conditioner for use in agriculture and horticulture. |
| 1.3 Details of the supplier of the MSDS | Hechenbichler GmbH, Cusanusweg 7-9, A-6020 Innsbruck, Austria.
g.hechenbichler@amalgerol.com, T +43 512 29 18 10-15, F -23 |
| 1.4 Emergency telephone number | during office hours see chapter 1.3, otherwise call Vienna General Hospital, toxic substance emergency T +43 1 406 43 43 |

2. Hazards identification

- | | |
|---|--|
| 2.1 Classification of the substance or mixture | This product is classified according to regulation (EC) No. 1272/2008 (CLP) and directives 67/548/EEC (GHS) and 1999/45/EC (CHIP).
Hazard and Precautionary statements: see in chapters 2.2, 2.3 and 3. |
| 2.2 Label elements | Classification under CLP:
Hazard class/hazard pictogram: Aqu. Chron. 3 / no pictogram
Signal words: N.A.
Hazard statements:
H402 Harmful to aquatic life
H412 Harmful to aquatic life with long-lasting effects
Precautionary statements:
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P273 Avoid release to the environment.
Classification under CHIP:
Symbol: N.A.
Indication of danger: N.A.
Risk phrases (R-phrases):
R52 Harmful to aquatic organisms
R53 May cause long-term adverse effects in the aquatic environment
Safety phrases (S-phrases):
S2 Keep out of the reach of children
S61 Avoid release to the environment. Refer to special instructions/safety data sheet
S56 Dispose of this material and its container at hazardous or special waste collection point
2.3 Other hazards
Hazards to the environment: see chapter 12. |

Material Safety Data Sheet**Product:** AMALGEROL**Version:** 2015/2**Revised on:** 16.06.2015**Page:** 2/7**HECHENBICHLER**
STÄRKT BODEN, PFLANZE, TIER

According to expertises of Leopold Franzens University Innsbruck, Department of Microbiology, of 15.05.2000 (Amalgerol) and 22.01.2001 (Güllemax), no hazard to water ecosystems if product is used according to the guidelines.

3. Composition/information on ingredients

3.1 Substances

N.A.

3.2 Mixtures

Trade name: AMALGEROL

Ingredients:

Plant extracts, essential oils and fatty acids in O/W emulsion, algae extract

Hazardous ingredients according to CHIP and CLP:**Isoparaffin L, Synthesis Grade**

CAS: 64742-48-9

EINECS: 265-150-3

Concentration $10 \leq C \leq 25$

Classification CHIP/CLP: Xn; N / Flam. Liq. 3; Asp. Tox 1; Aqu.Chron. 2; STOT SE 3

R-phrases:

R65 Harmful: may cause lung damage if swallowed

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R10/66/67 Flammable. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

H-phrases:

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H411 Toxic to aquatic life with long-lasting effects

H336 May cause drowsiness or dizziness

Solvent naphta (petroleum), light arom.

CAS: 64742-95-9

EINECS: 265-199-0

Concentration $2,5 \leq C \leq 5$

Classification CHIP/CLP: Xn; Xi; N, Flam Liq. 3; Asp.

Tox 1; Aqu. Chron. 2, STOT SE 3

R-phrases:

R37 Irritating to respiratory system

R65 Harmful: may cause lung damage if swallowed

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R10/66/67 Flammable. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

H-phrases:

Material Safety Data Sheet**Product:** AMALGEROL**Version:** 2015/2**Revised on:** 16.06.2015**Page:** 3/7**HECHENBICHLER**
STÄRKT BODEN, PFLANZE, TIER

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H411 Toxic to aquatic life with long-lasting effects

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

The used hydrocarbon mixture contains less than 0,1% of benzol.

4. First aid measures

4.1 Description of first aid measures

Show material safety data sheet to the doctor in all cases.

Remove contaminated clothing immediately.

After eye contact: Rinse open eye with clean water for at least 15 minutes.

If irritation persists for more than 30 minutes, seek medical advice.

After ingestion: Rinse mouth and drink plenty of water. Immediately consult a doctor and show this data sheet.

Do not induce vomiting.

After inhalation: Supply fresh air. If any effects occur, seek medical advice. After intensive inhalation, seek medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed

N.A.

4.3 Indication of any immediate medical attention and special treatment needed

Consult a doctor and show this safety data sheet in case of doubt or if irritations persist.

5. Firefighting measures

5.1 Extinguishing media

Adapt actions for fire extinction to local conditions.

Suitable fire extinguishing media: water spray jet, carbon dioxide or fire extinguishing powder.

Unsuitable fire extinguishing media: N.A.

5.2 Special hazards arising from the substance or mixture

The decomposition of the product can cause the formation of toxic gases, e.g. CO and CO₂.

5.3 Advice for fire fighters

Use appropriate breathing apparatus. Collect contaminated water separately. Not to be disposed of via wastewater. If possible, remove undamaged container out of danger area.

Cool intact containers with water spray or fog.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and skin. Wear protective clothing. See chapter 8.

Provide adequate ventilation. Do not eat, drink or smoke and keep away sources of ignition.

Wear safety glasses.

Material Safety Data Sheet

Product: AMALGEROL

Version: 2015/2

Revised on: 16.06.2015

Page: 4/7

HECHENBICHLER
STÄRKT BODEN, PFLANZE, TIER



6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

Absorb rests into sand, kieselguhr, binders for acid, universal binders or sawdust. Wash contaminated surfaces with warm water and soap. Disposal of residues according to governmental regulations. In case of release of large quantity inform the authorities.

6.4 Reference to other sections

See chapter 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling

Do not eat, drink or smoke during work. Wash hands after using this product. Wear protective clothing and gloves. Prove durability of protective items in advance.

7.2 Conditions for safe storage, including any incompatibilities

Store the product in its original packaging in ventilated places between +5°C and +25°C. Protect from frost, heat and direct sun. Keep container tightly closed.

7.3 Specific end use(s)

Do not store near food or feedingstuff. Keep out of reach of children. See chapter 1.

8. Exposure controls/personal protection

8.1 Control parameters

Respect workplace exposure limit 200 ppm for hydrocarbons.

8.2 Exposure controls

Follow the usual hygienic and protection guidelines when working with chemicals. Do not eat, drink and smoke during work. Wash hands after using this product. Wear protective clothing and gloves. Prove durability of protective items in advance. Wear safety glasses. Do not breathe gases/aerosols/vapours/dust. Wear respiratory protection (filter class A/P1) when ventilation is insufficient and in case of long exposition. Hand protection: wear solvent-proof gloves (made of e.g. fluororubber/viton or nitrile rubber)

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

appearance: liquid, brownish

odour: characteristic

odour threshold: N.A.

pH: 8,5

melting/freezing point: N.A.

initial boiling point and boiling range: 100°C

flash point: 48°C

evaporation rate: N.A.

flammability (solid, gas): the product is not self-sustaining combustible

upper/lower flammability: 0,6 Vol % / 7,0 Vol %.

vapour pressure at 20°C: N.A.

vapour density: 23 hPA

Material Safety Data Sheet**Product:** AMALGEROL**Version:** 2015/2**Revised on:** 16.06.2015**Page:** 5/7**HECHENBICHLER**
STÄRKT BODEN, PFLANZE, TIER**relative density:** 0,97 g/cm³**solubility:** N.A.**partition-coefficient:** n-octanol/water: N.A.**auto-ignition temperature:** N.A.**decomposition temperature:** N.A.**viscosity:** N.A.**explosive properties:** N.A.**oxidising properties:** N.A.**9.2 Other information**

The product is not self-igniting and not self-sustaining combustible.

10. Stability and reactivity

10.1 Reactivity

Stable under recommended transport, use and storage conditions.

10.2 Chemical stability

No decomposition under recommended transport, use and storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions under recommended transport, use and storage conditions.

10.4 Conditions to avoid

Avoid heat, sources of ignition and direct sun.

Avoid frost.

10.5 Incompatible materials

N.A.

10.6 Hazardous decomposition products

No hazardous decomposition products are known when product is transported, used and stored according to the guidelines.

11. Toxicological information

11.1 Information on toxicological effects**acute toxicity:**

Toxicity values for hydrocarbon mixture (component of the product):

- LD50>5000 mg/kg oral (rat)

- LD50>2000 mg/kg dermal (rabbit)

skin corrosion/irritation: N.A.**serious eye damage/irritation:** N.A.**respiratory or skin sensitisation:** N.A.**germ cell mutagenicity:** N.A.**carcinogenicity:** N.A.**reproductive toxicity:** N.A.**STOT-single exposure:** N.A.**STOT-repeated exposure:** N.A.**aspiration hazard:** N.A.

Material Safety Data Sheet**Product:** AMALGEROL**Version:** 2015/2**Revised on:** 16.06.2015**Page:** 6/7**HECHENBICHLER**
STÄRKT BODEN, PFLANZE, TIER

12. Ecological information

12.1 Toxicity	Use according to good agricultural practice. . Not toxic in recommended dosage (see expertises in chapter 2.3)
12.2 Persistence and degradability	Biodegradable.
12.3 Bioaccumulative potential	N.A.
12.4 Mobility in soil	Readily absorbed into soil.
12.5 Results in PBT and vPvB assessment	This substance is not identified as a PBT nor as vPvB substance.
12.6 Other adverse effects	Product contains substances that are harmful to aquatic organisms. If used properly, product is not hazardous to waters and soils (see expertises in chapter 2.3). However, keep the product away from drains, surface and ground water.

13. Disposal considerations

13.1 Waste treatment methods	If possible, use the whole amount of the product. Dispose of residues according to local and national guidelines of authorities. Dispose emptied containers in assigned collection points.
-------------------------------------	---

14. Transport information

No hazardous good acc. to ADR/RID, GGVS/GGVE, IMDG/GGVSee, ICAO-TI/IATA-DGR.

This product does not require a classification for transport.

14.1 UN number	No hazardous good according to transport regulations.
14.2 UN proper shipping name	N.A.
14.3 Transport hazard class(es)	N.A.
14.4 Packing group	N.A.
14.5 Environmental hazards	N.A.
14.6 Special precautions for users	N.A.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	N.A.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	This product is classified according to regulation CLP and REACH. No further regulations for health and environment protection do apply to this product.
15.2 Chemical Safety Assessment	A chemical safety assessment for this product has not been carried out by the supplier.

Material Safety Data Sheet**Product:** AMALGEROL**Version:** 2015/2**Revised on:** 16.06.2015**Page:** 7/7**HECHENBICHLER**
STÄRKT BODEN, PFLANZE, TIER

16. Other information

First or totally renewed version of this material safety data sheet. Changes have been made in all chapters.

The information in this document is based on our current knowledge. They describe the safety relevant properties and needs of the product. A claim on guaranty in case of damage cannot be derived. We recommend safety and first aid training courses to all persons who use this product.

Data sources:

IUCLID (International Uniform Chemical Information Database) of European Chemicals Agency ECHA

Material safety data sheets supplied by the producer.

Department issuing MSDS: Hechenbichler GmbH, siehe Punkt 1.3

R-phrases, S-phrases, H-phrases und P-phrases:

Where these phrases appear, they are written in full.

Abbreviations:

ADR/RID, GGVs/GGVE, IMDG/GGVSee, ICAO-TI/IATA-DGR, MARPOL, IBC	International transport standards for road and rail, ship and flight cargo.
CAS, EC-No.	Chemical Abstract Service, European Community number
CHIP	Regulations for classification, packaging and labelling of hazardous substances and mixtures.
CLP	EC-regulation for classification and labelling of chemicals.
EINECS	European Inventory of Existing Commercial chemical Substances
Flam Liq.; Asp. Tox; Aqu. Chron., STOT SE	Hazard description in the indicated class, according to CLP: flammable liquid, aspiration hazard, aquatic chronic, specific target organ system toxicity - single exposure
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
H-phrases	Hazard statements under GHS
LD50	median lethal dose
N.A.	no answer, not applicable, not available
P-phrases	Precautionary statements under GHS
PBT	Persistent bioaccumulative toxic chemical
R-phrases	Risk phrases according to guideline 67/548/EEC
REACH	EC-regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals
S-phrases	Safety phrases according to guideline 67/548/EEC
STOT	Specific Target Organ system Toxicity.
vPvB	very persistent and very bioaccumulative chemical
Xn; Xi; N	Hazard description according to CHIP: harmful, irritant, dangerous for the environment