

Safety Data Sheet

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

Trade name : HAKUPUR 49/203
Revision date : 02.05.2019
Print date : 30-08-2019

Version (Revision) : 111.5.0 (111.4.0)

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

1.1 Product identifier

HAKUPUR 49/203

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

Relevant identified uses

Product Categories [PC]

PC 9 - Coatings and paints, fillers, putties, thinners

PC 14 - Metal surface treatment products

PC 35 - Washing and cleaning products

Sector of uses [SU]

Industrial uses

Uses advised against

This product shall not be available to the general public/consumers as such. This product is not recommended for applications other than the above-identified uses.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Kluthe Benelux BV

Street : Produktieweg 8

Postal code/city : NL 2404 CC ALPHEN A/D RIJN

Telephone : +31 (0)172 - 516000

Telefax : +31 (0)172 - 439494

E-mail (competent person) : sds@kluthe.nl

1.4 Emergency telephone number

NL - Nationaal Vergiftigingen Informatie Centrum NVIC - Bilthoven + 31 30 274 88 88 (Uitsluitend bereikbaar voor een behandelend arts in geval van een accidentele vergiftiging) // BE - Antigifcentrum - Brussel + 32 70 245 245 (een arts beantwoordt uw oproep) // BE - Centre Anti-poison - Bruxelles + 32 70 245 245 (un médecin répondra à votre appel) // D - Antigifcentrum (Duitsland - Berlin) : +49 30 450 653565 // S - Swedish Poisons Information Center 112 begär Giftinformationscentralen // UK - Ricardo-AEA (UK) : +44 (0)870 190 6777 // DK - Poison Information Center Denmark +45 82 12 12 12 // AT (Austria) - Vergiftungsinformationszentrale der Gesundheit Österreich GmbH Notruf-Telefon: +43 1 406 43 43 // NO - Norwegian Environment Agency / Giftinformasjonene Tel: +47 22 59 13 00 // PL - Bureau for Chemical Substances +48 42 2538 400 // CZ - Ministry of Health of the Czech Republic +420267082257 // IT - Istituto Superiore di Sanità (ISS) +390649906140 // HU - Ministry of Human Capacities, Department for Chemical Safety // SK - National Toxicological Information Centre +421 2 5465 2307 // ES - Instituto Nacional de Toxicología y Ciencias Forenses (INTCF) +34 917689800 // TR - Ministry of Health Üniversiteler Mah. Dumlupınar Bulv. 6001. Cad. No:9 06800 Bilkent - Çankaya / Ankara- Turkey Telephone: +90 312 565 5212 / 5218 / 5222 //

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Skin Corr. 1A ; H314 - Skin corrosion/irritation : Category 1A ; Causes severe skin burns and eye damage.

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

2.2 Label elements

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

Hazard pictograms

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Corrosion (GHS05)

Signal word

Danger

Hazard components for labelling

POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3

2-AMINOETHANOL ; CAS No. : 141-43-5

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash face, hands and exposed skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see first aid instructions on this label and / or section 4 of the safety data sheet).

P501 Dispose of contents / container to a licensed waste processing company.

Special rules for supplemental label elements for certain mixtures

for professional use only

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

POTASSIUM HYDROXIDE ; REACH registration No. : 01-2119487136-33 ; EC No. : 215-181-3; CAS No. : 1310-58-3

Weight fraction : $\geq 5 - < 10$ %

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1A ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302

2-AMINOETHANOL ; REACH registration No. : 01-2119486455-28 ; EC No. : 205-483-3; CAS No. : 141-43-5

Weight fraction : $\geq 2,5 - < 3$ %

Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H312 Acute Tox. 4 ; H332 STOT SE 3 ; H335 Aquatic Chronic 3 ; H412

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH

None

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH

None

Additional information

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

Components according to regulation (EG) Nr. 648/2004

| | | |
|-----------------------|-------|-----------------------------|
| Phosphates | < 5 % | Regulation (EC) No 648/2004 |
| Non-ionic surfactants | < 5 % | Regulation (EC) No 648/2004 |
| Cationic surfactants | < 5 % | Regulation (EC) No 648/2004 |

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove affected person from the danger area and lay down. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

Following inhalation

In case of respiratory tract irritation, consult a physician. Remove casualty to fresh air and keep warm and at rest.

In case of skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunk in little sips (dilution effect).

4.2 Most important symptoms and effects, both acute and delayed

Respiratory complaints Cough Pulmonary irritation Irritation to eyes

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam Carbon dioxide (CO₂) Extinguishing powder Water spray

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

5.4 Additional information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Provide adequate ventilation. Wear breathing apparatus if exposed to vapours/dusts/aerosols. See protective measures under point 8 from the MSDS.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Wipe up with absorbent material (eg. cloth, fleece). Clear contaminated areas thoroughly. Clean with detergents. Avoid solvent cleaners. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

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See sections 8 &13

SECTION 7: Handling and storage



7.1 Precautions for safe handling

Wear personal protection equipment (refer to section 8 from the MSDS). Working places should be designed to allow cleaning at any time.

Protective measures

All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists

Measures to prevent fire

Usual measures for fire prevention.

Measures to prevent aerosol and dust generation

Vapours/aerosols should be exhausted directly at the point of origin.

Environmental precautions

Shafts and sewers must be protected from entry of the product.

Specific requirements or handling rules

When diluting/dissolving, always have the water ready first, then slowly stir in the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.

Hints on joint storage

Storage class (TRGS 510) : 8B

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

2-AMINOETHANOL ; CAS No. : 141-43-5

Limit value type (country of origin) : Maximum limit in the atmosphere at the workplace (D)

Limit value : 0,2 ppm / 0,5 mg/m³

Peak limitation : 1(I)

Remark : H, Sh, Y

Version : 07-06-2018

Limit value type (country of origin) : STEL (EC)

Limit value : 3 ppm / 7,6 mg/m³

Remark : H

Version : 31-01-2018

Limit value type (country of origin) : TWA (EC)

Limit value : 1 ppm / 2,5 mg/m³

Remark : H

Version : 31-01-2018

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type : DNEL/DMEL (Industrial) (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3)

Exposure route : Inhalation

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| | |
|----------------------|--|
| Exposure frequency : | Long- term exposure- Local effects |
| Limit value : | 1 mg/m ³ |
| Limit value type : | DNEL/DMEL (Consumer) (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Dermal |
| Exposure frequency : | Long-term exposure- Systemic effects |
| Limit value : | 0,24 mg/kg |
| Limit value type : | DNEL/DMEL (Consumer) (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Inhalation |
| Exposure frequency : | Long-term exposure- Systemic effects |
| Limit value : | 2 mg/m ³ |
| Limit value type : | DNEL/DMEL (Consumer) (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Inhalation |
| Exposure frequency : | Long- term exposure- Local effects |
| Limit value : | 2 mg/m ³ |
| Limit value type : | DNEL/DMEL (Consumer) (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Oral |
| Exposure frequency : | Long-term exposure- Systemic effects |
| Limit value : | 3,75 mg/kg |
| Limit value type : | DNEL/DMEL (Industrial) (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Dermal |
| Exposure frequency : | Long-term exposure- Systemic effects |
| Limit value : | 1 mg/kg |
| Limit value type : | DNEL/DMEL (Industrial) (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Inhalation |
| Exposure frequency : | Long-term exposure- Systemic effects |
| Limit value : | 3,3 mg/m ³ |
| Limit value type : | DNEL/DMEL (Industrial) (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Inhalation |
| Exposure frequency : | Long- term exposure- Local effects |
| Limit value : | 3,3 mg/m ³ |

PNEC

| | |
|--------------------|--|
| Limit value type : | PNEC (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Süßwasser |
| Limit value : | 0,085 mg/l |
| Limit value type : | PNEC (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Marine water |
| Limit value : | 0,0085 mg/l |
| Limit value type : | PNEC (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Sporadic release |
| Limit value : | 0,028 mg/l |
| Limit value type : | PNEC (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Sediment (fresh water) |
| Limit value : | 0,425 mg/kg |
| Limit value type : | PNEC (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Sediment (marine) |
| Limit value : | 0,0425 mg/kg |
| Limit value type : | PNEC (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Soil |
| Limit value : | 0,035 mg/kg |
| Limit value type : | PNEC (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Water waste installation |
| Limit value : | 100 mg/l |

8.2 Exposure controls

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Personal protection equipment

Eye/face protection

Eye glasses with side protection

Skin protection

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Suitable gloves type : Gloves with long cuffs

Suitable material : NBR (Nitrile rubber)

Breakthrough time (maximum wearing time) : 480 min

Thickness of the glove material : 0,7 mm

Recommended glove articles : EN ISO 374

Additional hand protection measures : Check leak tightness/impermeability prior to use. Do not wear gloves near rotary machines and tools. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Remark : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Body protection

Lab coat. Overall

Recommended material : Natural fibres (e.g. cotton) heat-resistant synthetic fibres

Additional body protection measures : For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes). Chemical resistant safety shoes

Remark : Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus

DIN EN 12942:2009-02 Filtering device with filter or ventilator filtering device of type: A

Remark

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

General health and safety measures

Wash hands before breaks and after work. Apply skin care products after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Colour: Colourless

Odour: Characteristic

Safety relevant basis data

Physical state :

Liquid

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| | | | | |
|------------------------------------|--------------|---|--------|---------------------------------|
| Store frost free : | | | | Yes |
| Viscosity: | | | | No data available |
| Melting point / range : | (1013 hPa) | | | no data available |
| Boiling point / range : | (1013 hPa) | > | 100 °C | Calculated |
| Decomposition temperature : | (1013 hPa) | | | No data available |
| Freezing point : | | | | °C |
| Flash point : | | | | Not inflammable |
| Ignition temperature : | | | | no data available |
| Vapour pressure : | (20 °C) | | | No data available |
| Density : | (20 °C) | | | 1,093 - 1,123 g/cm ³ |
| Solubility in water : | (20 °C) | | | Completely miscible |
| pH value (concentrate) : | (20 °C) | > | 13 | NEN 6411:1981 |
| log P O/W : | | | | No data available |
| Odour threshold : | | | | No data available |
| Vapourisation rate : | | | | No data available |
| Explosive properties : | | | | No data available |

9.2 Other information

Information on basic physical and chemical properties with no data available means not applicable due to the nature of the product.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3 Possibility of hazardous reactions

Exothermic reaction with: Acid

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Acid Oxidizing agent.

10.6 Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours. Carbon monoxide Carbon dioxide. Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Irritant and corrosive effects

Acute oral toxicity

| | |
|------------------|--|
| Parameter : | ATEmix calculated |
| Exposure route : | Oral |
| Effective dose : | 4375 mg/kg |
| Parameter : | LD50 (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3) |
| Exposure route : | Oral |
| Species : | Rat |
| Effective dose : | > 191 mg/kg |
| Parameter : | LD50 (2-AMINOETHANOL ; CAS No. : 141-43-5) |
| Exposure route : | Oral |
| Species : | Rat |
| Effective dose : | = 1515 mg/kg |

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Acute dermal toxicity

Parameter : ATEmix calculated
Exposure route : Dermal
Effective dose : 39401 mg/kg
Parameter : LD50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Exposure route : Dermal
Species : Rabbit
Effective dose : = 2504 mg/kg

Acute inhalation toxicity

Parameter : ATEmix calculated
Exposure route : Inhalation (vapour)
Effective dose : 394 mg/l
Parameter : LC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Exposure route : Inhalation
Species : Rat
Effective dose : > 1,3 mg/l
Exposure time : 6 h

Irritant and corrosive effects

Primary irritation to the skin

Parameter : Primary irritation to the skin (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Rabbit
Result : Corrosive
Method : OECD 404

Irritation to eyes

Parameter : Irritation to eyes (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Rabbit
Result : Corrosive
Method : OECD 405

Irritation to respiratory tract

Parameter : Irritation to respiratory tract (2-AMINOETHANOL ; CAS No. : 141-43-5)
Result : Strongly irritant

Sensitisation

In case of skin contact

Parameter : Skin sensitisation (2-AMINOETHANOL ; CAS No. : 141-43-5)
Result : Not sensitising.
Method : OECD 406

In case of inhalation

No information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No information available.

STOT-single exposure

No information available.

STOT-repeated exposure

No information available.

Aspiration hazard

No information available.

11.2 Toxicokinetics, metabolism and distribution

No information available.

11.4 Other adverse effects

No information available.

11.5 Additional information

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Toxicological data are not available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Chronic (long-term) fish toxicity

Parameter : NOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Oryzias latipes
Evaluation parameter : Chronic (long-term) fish toxicity
Effective dose : = 1,2 mg/l
Exposure time : 30 Days

Chronic (long-term) daphnia toxicity

Parameter : NOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : = 0,85 mg/l
Exposure time : 21 Days

Acute (short-term) algae toxicity

Parameter : EC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : = 65 mg/l
Exposure time : 48 h

Parameter : EC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Selenastrum capricornutum
Evaluation parameter : Inhibition of growth rate
Effective dose : = 2,5 mg/l
Exposure time : 72 h

Parameter : EC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Scenedesmus subspicatus
Evaluation parameter : Inhibition of growth rate
Effective dose : = 22 mg/l
Exposure time : 72 h

Chronic (long-term) algae toxicity

Parameter : NOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Selenastrum capricornutum
Evaluation parameter : Inhibition of growth rate
Effective dose : = 1 mg/l
Exposure time : 72 h

Bacteria toxicity

Parameter : EC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species : Pseudomonas putida
Evaluation parameter : Bacteria toxicity
Effective dose : = 110 mg/l
Exposure time : 16 h

12.2 Persistence and degradability

Biodegradation

Parameter : Biodegradation (POTASSIUM HYDROXIDE ; CAS No. : 1310-58-3)
Degradation rate : < 70 %
Test duration : 28 Days
Parameter : Biodegradation (2-AMINOETHANOL ; CAS No. : 141-43-5)
Degradation rate : > 90 %
Test duration : 21 Days

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Method : OECD 301A

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

None

SECTION 13: Disposal considerations

The product is an alkali. Before discharge into sewage plants the product normally needs to be neutralised. Dispose according to legislation.

13.1 Waste treatment methods

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code (91/689/EEC) : 11 01 13* In accordance with local official regulations treat in a watertreatment or discharge to a waste disposal company.

13.2 Additional information

None

SECTION 14: Transport information

14.1 UN number

UN 3266

14.2 UN proper shipping name

Land transport (ADR/RID)

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE · ETHANOLAMINE)

Sea transport (IMDG)

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE · ETHANOLAMINE)

Air transport (ICAO-TI / IATA-DGR)

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE · ETHANOLAMINE)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 8
Classification code : C5
Hazard identification number (Kemler No.) : 80
Tunnel restriction code : E
Special provisions : LQ 1 I
Hazard label(s) :



8

Sea transport (IMDG)

Class(es) : 8
EmS-No. : F-A / S-B
Special provisions : LQ 0 · E 0

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Hazard label(s) :



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Air transport (ICAO-TI / IATA-DGR)

Class(es) :

8

Special provisions :

E 0

Hazard label(s) :



8

14.4 Packing group

II

14.5 Environmental hazards

Land transport (ADR/RID) : No

Sea transport (IMDG) : No

Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

14.8 Additional information

Inland waterway craft (ADN) : No data available

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no. : 3

National regulations

Technische Anleitung Luft (TA-Luft)

Weight fraction (Number 5.2.5. I) : < 5 %

Water hazard class (WGK)

Classification according to AwSV - Class : 1 (Slightly hazardous to water)

International regulatory information

This product contains max.: 31 g/l VOC

15.2 Chemical safety assessment

For this mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

07. Hints on joint storage - Storage class · 08. DNEL/DMEL · 08. PNEC · 15. Restrictions on use

16.2 Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ABM Algemene Beoordelings Methodiek

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ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
AC Article category
CSR Chemical safety report
CAS Chemical Abstracts Service
CLP Classification Labelling Packaging
DIN Duitse Institut voor Normen
DMEL Derived minimum effect level
DNEL Derived No-Effect Level
DU Downstream user
DU-CSA Downstream user chemical safety assessment
ECHA European Chemicals Agency
EC50 Half maximal effective concentration
EINECS European Inventory of Existing Commercial Chemical Substances
ERC Environmental release class
ES Exposure scenario
ESD Emission scenario document
EWC European waste Catalogue
EWL European waste list
GHS Globally Harmonised System
IMDG International Maritime Dangerous Goods Code
ISO International Standards Organisation
LC50 Median lethal concentration. The concentration causing 50 % lethality
LD50 Median lethal dose. The dose causing 50 % lethality
LEL Lower Explosion Limit
NOAEL No observed adverse effect level
NOEC No observed effect concentration
NOEL No observed effect level
OC Operational condition
OEL Occupational exposure Limits
PC Chemical product category
PBT Persistent, bioaccumulative, toxic
PNEC Predicted no-effect concentration
PPE Personal protection equipment
PROC Process category
RMM Risk management measure
REACH Registration, Evaluation and Restriction of Chemicals
SDS Safety data sheet
STEL Short-term Exposure limit
SU Sectors of use
SVHC Substances of very high concern
UC Use category
UN United Nations
VIB Veiligheidsinformatieblad
vPvB Very persistent and very bioaccumulative
ZZS Zeer Zorgwekkende Stoffen

16.3 Key literature references and sources for data

None

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

Classification of the substance or mixture according to Regulation (EC) No 1272/2008 [CLP] by calculation method via software.

16.5 Relevant H- and EUH-phrases (Number and full text)

| | |
|------|--|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |

Safety Data Sheet

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

Trade name : HAKUPUR 49/203
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H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

16.6 Training advice

None

16.7 Additional information

We have no knowledge or control over the user's working conditions however. The user is responsible for the observance of all required statutory provisions. These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
