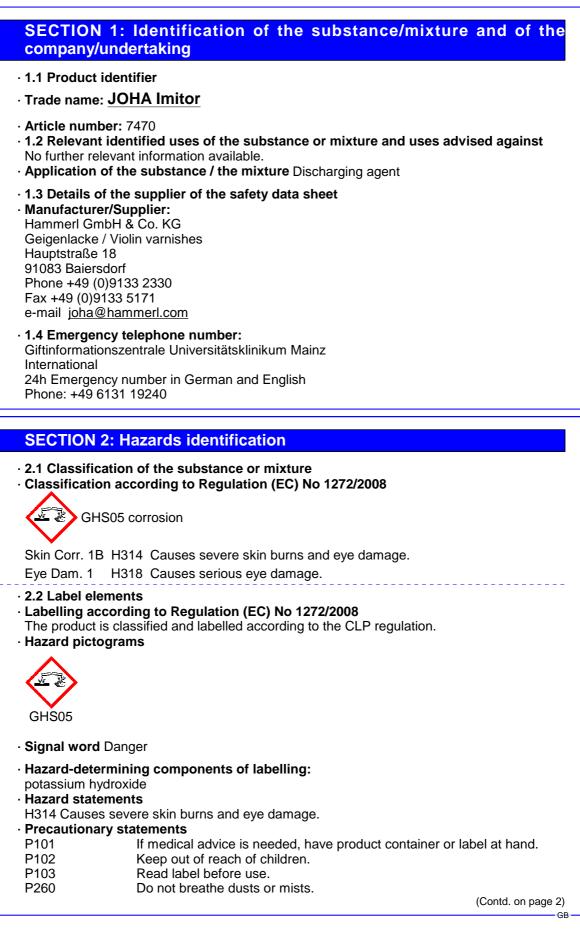
Printing date 21.03.2017

according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017





Safety data sheet according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017

Trade name: JOHA Imitor

| P303+P361+ | Contd. of page 1) P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing! |
|--|---|
| | Rinse skin with water/shower. |
| P305+P351+ | -P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove |
| | contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER/doctor. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local/regional/national |
| | international regulations. |
| · Labelling of | packages where the contents do not exceed 125 ml |
| · Hazard picto | |
| A | |
| | |
| <u> </u> | |
| | |
| GHS05 | |
| 011000 | |
| · Signal word | Danger |
| - | mulain a componente of lob ellin m |
| | rmining components of labelling: |
| potassium hy | |
| · Hazara etata | |
| | |
| H314 Causes | s severe skin burns and eye damage. |
| H314 Causes • Precautiona | s severe skin burns and eye damage. I ry statements |
| H314 Causes • Precautiona P101 | s severe skin burns and eye damage. I ry statements If medical advice is needed, have product container or label at hand. |
| H314 Causes • Precautiona P101 P102 | s severe skin burns and eye damage. Iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. |
| H314 Causes • Precautiona P101 P102 P103 | s severe skin burns and eye damage. Iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. |
| H314 Causes • Precautiona P101 P102 P103 P260 | s severe skin burns and eye damage. iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. |
| H314 Causes • Precautiona P101 P102 P103 P260 | s severe skin burns and eye damage. iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing |
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| H314 Causes Precautiona P101 P102 P103 P260 P303+P361+ P305+P351+ | s severe skin burns and eye damage. iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. -P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower. -P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| H314 Causes Precautiona P101 P102 P103 P260 P303+P361+ P305+P351+ P310 | s severe skin burns and eye damage. iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. |
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| H314 Causes Precautiona P101 P102 P103 P260 P303+P361+ P305+P351+ P310 P405 | s severe skin burns and eye damage. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Store locked up. Dispose of contents/container in accordance with local/regional/national international regulations. |
| H314 Causes Precautiona P101 P102 P103 P260 P303+P361+ P305+P351+ P310 P405 P501 • 2.3 Other ha | s severe skin burns and eye damage. iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Store locked up. Dispose of contents/container in accordance with local/regional/national international regulations. |
| H314 Causes Precautiona P101 P102 P103 P260 P303+P361+ P305+P351+ P310 P405 P501 • 2.3 Other ha • Results of P | s severe skin burns and eye damage. Iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Store locked up. Dispose of contents/container in accordance with local/regional/national international regulations. Izards PBT and vPvB assessment |
| H314 Causes Precautiona P101 P102 P103 P260 P303+P361+ P305+P351+ P310 P405 P501 • 2.3 Other ha | s severe skin burns and eye damage. Iry statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dusts or mists. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Store locked up. Dispose of contents/container in accordance with local/regional/national international regulations. PBT and vPvB assessment plicable. |

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

| · Dangerous components: | | | | |
|---|---------------------|---|----------|--|
| CAS: 497-19-8 EINECS: 207-838-8 | sodium carbonate | Eye Irrit. 2, H319 | 2.5-<10% | |
| CAS: 1310-58-3 EINECS: 215-181-3 | potassium hydroxide | Skin Corr. 1A, H314 Acute Tox. 4, H302 | 2.5-<5% | |
| • Additional information: For the wording of the listed hazard phrases refer to section 16. | | | | |

(Contd. on page 3)



Safety data sheet according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017

Trade name: JOHA Imitor

(Contd. of page 2)

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · After inhalation:
- In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:
- Use fire extinguishing methods suitable to surrounding conditions.
- \cdot 5.2 Special hazards arising from the substance or mixture
- During heating or in case of fire poisonous gases are produced.
- 5.3 Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

 \cdot 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

6.4 Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- Information about fire and explosion protection:
- Keep respiratory protective device available.

(Contd. on page 4)

according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017

(Contd. of page 3)

Trade name: JOHA Imitor

- \cdot 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- \cdot 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:
- 1310-58-3 potassium hydroxide
- WEL Short-term value: 2 mg/m³
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- · Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 5)





Printing date 21.03.2017

Safety data sheet according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017

| Trade name: JOHA Imitor | | |
|---|--|--|
| • Eye protection: Safety glasses | (Contd. of page 4) | |
| Tightly sealed goggles | | |
| SECTION 9: Physical and che | mical properties | |
| · 9.1 Information on basic physical ar | · · | |
| General Information Appearance: | | |
| Form: Colour: · Odour: | Fluid According to product specification Characteristic | |
| Odour threshold: | Not determined. | |
| · pH-value: | Not determined. | |
| Change in condition Melting point/freezing point: Initial boiling point and boiling rar | Undetermined. 1ge: >34 °C | |
| · Flash point: | Not applicable. | |
| · Flammability (solid, gas): | Not applicable. | |
| · Ignition temperature: | | |
| Decomposition temperature: | Not determined. | |
| · Auto-ignition temperature: | Product is not selfigniting. | |
| · Explosive properties: | Not determined. | |
| · Explosion limits: Lower: Upper: | Not determined. Not determined. | |
| · Vapour pressure at 20 °C: | 23 hPa | |
| Density: Relative density Vapour density Evaporation rate | Not determined. Not determined. Not determined. Not determined. | |
| Solubility in / Miscibility with water: | Fully miscible. | |
| · Partition coefficient: n-octanol/wate | er: Not determined. | |
| Viscosity: Dynamic: Kinematic: | Not determined. Not determined. | |
| Solvent content: Organic solvents: Water: | 0.0 % 53.3 % | |
| Solids content: | 46.7 % | |

(Contd. on page 6) GB



according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017

Trade name: JOHA Imitor

(Contd. of page 5)

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- \cdot 10.3 Possibility of hazardous reactions No dangerous reactions known.
- \cdot 10.4 Conditions to avoid No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

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

· LD/LC50 values relevant for classification:

497-19-8 sodium carbonate

Oral LD50 4090 mg/kg (rat)

- 1310-58-3 potassium hydroxide
- Oral LD50 273 mg/kg (rat)
- · Primary irritant effect:
- · Skin corrosion/irritation
- Causes severe skin burns and eye damage.
- · Serious eye damage/irritation
- Causes serious eye damage.
- · Respiratory or skin sensitisation
- Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity 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.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

(Contd. on page 7)

according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017

(Contd. of page 6)

Trade name: JOHA Imitor

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packaging:

- Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

| SECTION 14: Transport information | |
|---|--|
| · 14.1 UN-Number · ADR, IMDG, IATA | UN1814 |
| · 14.2 UN proper shipping name · ADR | 1814 POTASSIUM HYDROXIDE SOLUTION |
| · IMDG, IATA | mixture POTASSIUM HYDROXIDE SOLUTION mixture |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
| | |
| · Class · Label | 8 Corrosive substances. 8 |
| · 14.4 Packing group · ADR, IMDG, IATA | II |
| • 14.5 Environmental hazards: • Marine pollutant: | No |
| 14.6 Special precautions for user Danger code (Kemler): | Warning: Corrosive substances. 80 |
| · EMS Number: | F-A,S-B |
| Segregation groups Stowage Category | Alkalis A |
| · Segregation Code | SG35 Stow "separated from" acids. |
| 14.7 Transport in bulk according to Ann II of Marpol and the IBC Code | Not applicable. |
| | (Contd. on page 8 |



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 21.03.2017

Version number 3

Revision: 21.03.2017

Trade name: JOHA Imitor

| | (Contd. of page 7 |
|---|---|
| · Transport/Additional information: | |
| ADR Limited quantities (LQ) Excepted quantities (EQ) | 1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: |
| Transport category Tunnel restriction code | 500 ml 2 E |
| IMDG Limited quantities (LQ) Excepted quantities (EQ) | 1L Code: E2 Maximum net quantity per inner packaging 30 ml Maximum net quantity per outer packaging 500 ml |
| · UN "Model Regulation": | UN 1814 POTASSIUM HYDROXIDE SOLUTION MIXTURE, 8, II |

SECTION 15: Regulatory information

| substance o | cording to Regulation (EC) No 1272/2008 s classified and labelled according to the CLP regulation. |
|---------------|---|
| · Signal word | Danger |
| potassium hy | ements |
| | s severe skin burns and eye damage. |
| P101 | ry statements If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |
| P260 | Do not breathe dusts or mists. |
| | P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. |
| | Rinse skin with water/shower. |
| P305+P351+ | P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove |
| | contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER/doctor. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local/regional/national/ international regulations. |
| | (Contd. on page 9) |
| | |





according to 1907/2006/EC, Article 31

Version number 3

Revision: 21.03.2017

Trade name: JOHA Imitor

(Contd. of page 8)

- · Directive 2012/18/EU
- Named dangerous substances ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · National regulations:
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. • 15.2 Chemical safety assessment:
- A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed.

- H314 Causes severe skin burns and eye damage.
- H319 Causes serious eye irritation.
- Department issuing SDS: Abteilung Umweltschutz
- · Contact: Hr. Hammerl
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Acute Tox. 4: Acute toxicity - Category 4 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Skin Corr. 1B: Skin corrosion/irritation - Category 1B Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 • * Data compared to the previous version altered.