MATERIAL SAFETY DATA SHEET CREATININE liquicolor

| 1. Information of the Substance / Preparation and of the Company | | | | |
|--|-----------|---|--|--|
| 1.1 | Product | CREATININE liquicolor | | |
| | REF | 10051 | | |
| | | This applies also for respective Cat.Nos. for bulk, neutral and OEM products. | | |
| 1.2 | Company | HUMAN Gesellschaft für Biochemica und Diagnostica mbH, Max-Planck-Ring | | |
| | | 21, 65205 Wiesbaden, Germany | | |
| | | 2 : +49 (0) 6122 99 88 0; Fax: +49 (0) 6122 99 88 100 | | |
| | | eMail: human@human.de | | |
| 1.3 | Emergency | ☎: +49 (0) 6122 99 88 0; Fax: +49 (0) 6122 99 88 100 | | |
| | contact: | eMail: human@human.de | | |

| 2. Composition / Information on Ingredients | | | | | |
|---|---------------------|--|--|-------------------|---------------|
| 2.1 Contents: | | | | | |
| REF | | RGT | Reagent | Quantity | Formula |
| 10051 | Complete kit | PIC | Picric acid | 1 x 100 ml | - |
| | | NaOH | Sodium | 1 x 100 ml | - |
| | | | Hydroxide | | |
| | | STD | Standard | 1 x 5 ml | - |
| 2.2 Dangerous ing | redients: | | | | |
| Component | Substance | CAS | R-Phrases | Symbol acc. | Concentration |
| | | | | relative | |
| | | | | concentration | |
| PIC | Picric acid | EG-Nr.: 2018659 | R: 2-4-23/24/25 | | 0,6% |
| | | | S: 28-35-37-45 | | |
| NaOH | Sodium | 1310-73-2 | R: 35 | | 6.7% |
| | Hydroxide | | S: 1/2-26-37/39- | \$2 | |
| | | | 45 | | |
| 2.3 Classification | n of Kit in accorda | nce with relative | concentration of d | langerous ingredi | ents |
| Corrosive | | R 35: Causes severe burns. | | | |
| | | S 26-37/39-45: In case of contact with the | | | |
| | | eyes immediately rinse thoroughly with | | * | |
| | | water and consult a doctor; At work wear | | | |
| | | proper protective gloves and protective | | | |
| | | | goggles / face protection; In case of an | | |
| | | accident or sickness immediately consult | | | |
| | | a doctor (if possible, | show this label) | | |

| 3. Hazards Identification | |
|---|--|
| Irritating to eyes, respiratory system and skin | |

| 4. First-aid Measures | | |
|--|---|--|
| Eye contact Wash with copious amounts of water for several minutes. Assure a | | |
| | flushing of eyes by separating the eyelids. Seek medical advice. | |
| Skin contact | Instantly rinse with plenty of water and apply disinfectant. Seek medical | |
| | advice. | |
| Ingestion | Rinse out mouth, and seek medical advice. | |
| Inhalation | Fresh air. Seek medical advice. | |
| Direction for physician | Symptomatic treatment, possibility of infection and allergenic reactions. | |

| 5. Fire-fighting Measures | | |
|--|--|--|
| Extinguishing media | Water, foam, depending on environment. | |
| Thermal decomposition Dangerous decomposition products and gases which are damaging to hea | | |
| | in large quantities are not anticipated. | |
| Further data | Not yet available | |

| 6. Accidental Release Measures | | | | | |
|---|--|--|--|--|--|
| After spillage Wear protective clothing, soak up with absorbent material (i.e. verm | | | | | |
| | cotton fleece), dispose material as biochemical waste in accordance with | | | | |
| | regulations; rinse well with disinfectant, followed by water. | | | | |



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| Absorbent material | No restrictions |
|--------------------|-----------------|

| 7. Handling and Storage | | | | |
|-------------------------|---|--|--|--|
| 7.1 Handling | Substance itself does not burn. Handle with care. | | | |
| 7.2 Storage | Store at 1525°C. | | | |

| 8. Exposure Controls / Personal Protection | | | |
|---|-----|--|--|
| Respiratory protection: If gas or dust formation occurs. | | | |
| Eye protection: | Yes | | |
| Hand protection: Yes | | | |
| Wear gloves, goggles and protective clothing. Wash and disinfe work and before breaks. Change contaminated clothing immed | | | |

| 9. Physical and Chemical Properties | | | | | |
|-------------------------------------|-----------------------------|-----------------------------|-----------------------|--|--|
| | PIC | NaOH | STD | | |
| Appearance | Liquid | Liquid | Liquid | | |
| Colour | Yellow | Colourless | Colourless | | |
| Odour | None | None | None | | |
| pH (@20°C) | ≈ 3 | ≈ 14 | ≈ 7 | | |
| Melting point | Similar to H ₂ O | Similar to H₂O | Similar to H₂O | | |
| Boiling point | Similar to H₂O | Similar to H ₂ O | Similar to H₂O | | |
| Flash point | n/a | n/a | n/a | | |
| Ignition temp. | n/a | n/a | n/a | | |
| Explosion limits, Lower | n/a | n/a | n/a | | |
| Upper | n/a | n/a | n/a | | |
| Vapour pressure | Similar to H₂O | Similar to H₂O | Similar to H₂O | | |
| Density | ≈ 1g/ml | ≈ 1g/ml | ≈ 1g/ml | | |
| Solubility in water | Soluble | Soluble | Soluble | | |
| Further data | Dil. aqueous solution | Dil. aqueous solution | Dil. aqueous solution | | |

| 10. Stability and Reactivity | | | | |
|----------------------------------|------------------------------------|--|--|--|
| Hazardous reactions | None known when used appropriately | | | |
| Conditions to avoid | High temperature, freezing | | | |
| Hazardous decomposition products | Not known | | | |

11. Toxicological Information

Toxicological data for the preparation is not available. The preparation contains aqueous solutions of sodium hydroxide and picric acid, respectively, and may therefore cause burns. Contact with eyes may cause irreversible damage. If swallowed, severe burns may occur to mucous membranes and the digestive tract system. Nausea, vomiting and respiratory difficulties, as well as increased pulse rate and/or hypersensitivity cannot be excluded.

12. Ecological Information

Ecological data for this product is not available. No ecological problems are expected when the product is handled and used with due care and attention.

13. Disposal Considerations

Chemicals and biochemical residues and remains should be routinely handled as special waste. These must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information. European waste catologue: 180103 wastes whose collection and disposal is subject to special requirements in order to prevent infection.

| 14. Transport Information | | | | | |
|---------------------------|------|---------|-----------|----------|------|
| UN | GGVE | RID/ADR | ICAO/IATA | IMDG/EMS | MFAG |



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| 1824 | - | Class: 8 | Class: 8 | - | - |
|------|---|----------|-----------|---|---|
| | | Code: C5 | | | |
| | | PG: II | PG: II | | |
| | | LQ22 | PASS: 851 | | |
| | | TC: 2 | CAO: 855 | | |

| 15. Regulatory Information | | | | | |
|----------------------------|-----------|---------------------------------|-----------------------|--|--|
| Symbol | Warning | R-Phrases | Contents | | |
| | Corrosive | R: 35 S: 1/2-24/25-26- 45 | Sodium hydroxide | | |
| NAOH | WGK = 1 | | 6,7% Sodium hydroxide | | |

16. Other Information

The information herein is based on the current extent of our knowledge and is believed to be correct, but is provided without warranty of any kind. The recipient of our product is responsible for observing all applicable laws and regulations.

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