

MATERIAL SAFETY DATA SHEET

ACCORDING TO DIRECTIVE

91/155/EEG-2001/58/EC

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

K1220QJ: BUFFER POWDER pH=9,18 (6C236)

Use of the substance / preparation: For pH calibration. According to IEC / DIN 60746-2.

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2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | Content | Formula | symbol letters | R phrases | EINECS nr. | CAS nr. |
|----------------------------------|---------|--|----------------|---------------------|------------|------------|
| Disodium Tetraborate Decahydrate | 99.87% | $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$ | Xn | R36/37/38; R62; R63 | 215-540-4 | 1303-96-4 |
| E104 Quinoline Yellow | 0.13% | $\text{C}_{18}\text{H}_{19}\text{NNa}_2\text{O}_6\text{S}_2$ | n.a. | n.a. | 305-897-5 | 95193-83-2 |

3. HAZARDS IDENTIFICATION

Danger classification:

 Xn Harmful.

Hazards to man and the environment:

R 36/37/38:

Irritating to eyes, respiratory system and skin.

R 62:

Possible risk of impaired fertility.

R 63:

Possible risk of harm to the unborn child.

4. FIRST AID MEASURES

After inhalation: Supply fresh air; consult doctor in case of symptoms.

After skin contact: Instantly rinse with water.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

After swallowing: Rinse out mouth. Seek medical treatment.

****Consult a doctor if victim is feeling unwell.****5. FIRE-FIGHTING MEASURES**Suitable extinguishing media: Water, CO₂, foam, powder.

Special protective equipment for fire-fighters: Do not stay in dangerous zone without self-contained breathing apparatus.

Other information: Prevent fire-fighting water from entering surface water or groundwater.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid substance contact, generation of dust. Do not inhale dusts.

Environmental precautions: Do not allow product to reach sewage system or water bodies.

Methods for cleaning up: Take up dry and dispose according to local regulations.

Additional information: No dangerous materials are released.

7. HANDLING AND STORAGE

Handling: Prevent formation of dust.

Storage: Store at room temperature, dry conditions and keep well sealed. Store a prepared solution in a chemical resistant bottle.

8. EXPOSURE CONTROLS/PERSONAL PROTECTIONComponents with critical values that require monitoring at the workplace: Disodium Tetraborate Decahydrate: Long-term value: 5 mg/m³.

Exposure limit values: Possible risk of impaired fertility and of harm to the unborn child.

Occupational exposure controls: The usual precautionary measures should be adhered to in handling the chemicals.

Respiratory protection: Not necessary if room is well-ventilated.

Hand, eye, skin protection: Wear protective gloves, safety glasses and protective work clothing.

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9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--------------------|
| Appearance: | Crystalline powder |
| Color | Orange |
| Smell | Odorless |
| pH when diluted in 200.00 ml demineralized water | 9.18 at 25° C |
| water solubility | 50 g/l |

10. STABILITY AND REACTIVITY

Conditions and materials to avoid: Strong heating, metallic salts, strong acids.
Hazardous decomposition products: No dangerous decomposition products known.
Further information: Releases water of crystallization when heated.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 2660 mg/kg (rat); Dermal LD50 >2000 mg/kg (rabbit)
Primary effect on the skin and eye: Possible irritation.
After swallowing: Rapid absorption, can be followed by nausea and vomiting and cardiovascular disorders.
Additional toxicological information: When used and handled according to specifications, the product does not have any harmful effects.

12. ECOLOGICAL INFORMATION

No ecological problems are to be expected when the product is handled and used with due care and attention.

13. DISPOSAL CONSIDERATIONS

May not be disposed together with household garbage, or to reach sewage system. Dispose according to local regulations.

14. TRANSPORT INFORMATION

Not subject to transport regulations.

15. REGULATORY INFORMATION

Danger classification:  Xn Harmful.

List of relevant Risk- phrases: **R36/37/38** Irritating to eyes, respiratory system and skin.
R62 Possible risk of impaired fertility.
R63 Possible risk of harm to the unborn child.

List of relevant Safety phrases: **S22** Do not breathe dust.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label).

Designation according to EC guidelines:

The material is not subject to classification according to EC lists and other sources of literature known to us.
Observe the normal safety regulations when handling chemicals.

Water hazard class 1: slightly hazardous for water. Do not allow to enter waters, waste water or soil.

16. OTHER INFORMATION

The above information is based on the present state of knowledge and is believed to be correct. Its purpose is to characterize the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. The material safety data sheets will be available in other languages on our website.

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