

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:

K1220QE: BUFFER POWDER pH=1.68 (6C231)

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.
Potassium Tetraoxalate Dihydrate	99.96 %	$C_4H_3KO_8 \cdot 2H_2O$	Xn	R21/22	204-874-6	6100-20-5
E133 Brilliant Blue	0.04%	$C_{37}H_{34}N_2Na_2O_9S_3$	n.a	n.a.	223-339-8	3844-45-9

3. HAZARDS IDENTIFICATIONDanger classification:  Xn Harmful.Hazards to man and the environment: **R21/22:** Harmful in contact with skin and if swallowed.**4. FIRST AID MEASURES****After inhalation:** Supply fresh air. Consult doctor if feeling unwell.**After skin contact:** Wash off with plenty of water. Remove contaminated clothing. Call in physician.**After eye contact :** Rinse out with plenty of water with the eyelid held wide open.**After swallowing:** Immediately make victim drink plenty of water. Call in physician.****Consult a doctor if victim is feeling unwell.****5. FIRE-FIGHTING MEASURES****Suitable extinguishing media:** Water, CO₂, foam, powder.**Combustion products, resulting gases:** Development of hazardous combustion gases or vapors possible in the event of fire.**Special protective equipment for fire-fighters:** Do not stay in dangerous zone without self-contained breathing apparatus and to avoid contact with skin: wear suitable protective clothing.**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 to enter sewage system.**Methods for cleaning up:** Take up dry. Forward for disposal. Clean up affected area.**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 PROTECTION****Exposure limit values:** No further data.**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.**K1220QE****Date of issue:**

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Crystalline powder
Color	Blue
Smell	Odorless
pH when diluted in 200.00 ml demineralized water	1.68 at 25° C
water solubility	25 g/l

10. STABILITY AND REACTIVITY

Conditions and materials to avoid: Strong heating.
Hazardous decomposition products: No information available.
Further information: Releases water of crystallization when heated.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Quantitative data on the toxicity of this product are not available.
Primary effect: - on the skin: Harmful in contact with skin.
- on the eye: Possible irritation.
After swallowing: Nausea and vomiting.
After inhalation: Possible mucosal irritation, coughing and dyspnoea.
Additional toxicological information: Drop the blood calcium level, toxic effect on kidney.

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: R21/2: Harmful in contact with skin and if swallowed.
List of relevant Safety phrases: S24/2: Avoid contact with skin and eyes.

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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