1. Product and Company Identification

Product Identification: Buffer solution ORP- Part No.: 506240
791439
506241

Company Identification: ProMinent Dosiertechnik GmbH
REG- No.: HRB 1350 / Heidelberg
69123 Heidelberg, Im Schuhmachergewann 5-11
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2. Composition / Information on Ingredients

Contains:
- Ferrous Ammonium Sulfate (NH4)2Fe(SO4)2 CAS No 10045-89-3 < 5 %
- Ferric Ammonium Sulfate NH4Fe(SO4)2 CAS No 7783-83-7 < 5 %
- Sulfuric Acid H2SO4 CAS No 7664-93-9 < 10 %
in aqueous solution according to DIN 38484 part 6.
Hazardous ingredients for health: contains 5 - 15 % sulfuric acid
Symbol: Xi (irritant) R-phrase: 36/38

3. Hazards identification of the product

R 36/38: Irritating to eyes and skin

4. First aid measures

after skin contact: Rinse with running water and soap. Skin care.
Remove contaminated clothes.
after eye contact: Immediately flush eyes with copious amounts of running water
(at least for 10 minutes) see an oculist.
After ingestion: Drink plenty of water. Immediately see a physician.

5. Fire-fighting measures

Suitable extinguishing media: are to be fit in with the environment. Escaping vapours
are to be densified with water. Extinguishing media which must not be used for safety
reasons: not applicable
Special exposure hazards: not flammable.

6. Accidental release measures

Personal Precautions: Avoid contact with skin and eyes.
Environmental precautions: Do not allow to flow into drainage system.
Methods of cleaning up / of removing: dilute with plenty of water, then neutralize with
alcaline solutions, lime (CaCO3) or sodium bicarbonate (NaHCO3).
7. Handling and storage

Handling: The product is to be handled with the usual care and caution for chemicals.
Storage: Keep original container tightly sealed.

8. Exposure / personal protection

Additional information on the system design: no further data, see item 7
Components with specific control parameters: none
Personal Protection:
Eye protection: necessary
Hand protection: necessary

9. Physical and chemical properties:

physical state: liquid
colour: light yellow
odour: inodourous
pH-value: approx. 0.5 (undiluted at 20 °C)
cold sensitivity: under -5 °C
flash point: not applicable
vapour pressure: (aqueous solution)
relative density: approx. 1.1 kg/l (20 °C)
solubility: miscible in water (20 °C)

10. Stability and Reactivity

Conditions to avoid: no decomposition if used according to specifications
Materials to avoid: reaction with lyes: heat generated
reaction with metals: hydrogen released
Hazardous decomposition products: none known

11. Toxicological Information

Quantitative data regarding the toxicology of the product are not known.
Ferrous Ammonium Sulfate LD50 : 3250 mg/kg (oral, rat)
Ferric Ammonium Sulfate LD50 : not available
Sulfuric Acid LD50 : 2140 mg/kg (oral, rat)
Skin contact: The product is irritant to mucous membranes.

12. Ecological Information

Data regarding persistence and degradability:
Degradability: not pertinent, inorganic product
aquatic toxicity: main hazardous effect by reducing the pH-value.
In case of discharging the acidic product into the sewerage system, the treated waste water should have a pH-value according to local discharge statutes.
13. Disposal Considerations

In consultation with the responsible local authority, must be subjected to special treatment: neutralisation. In case of chemical collecting actions of the authorities, small containers can be handed over together with this safety data sheet.

14. Transport Information

The product is a hazardous material according to the transport norms:
GGVS/ADR/GGVE/RID : class 8/1b
IMDG-Code : 8/II UN 2796
ICAO/IATA : 8 UN 2796 PAX 809 CAO 813

15. Regulations

Classification and labelling according to the norm for hazardous materials annex II No 1 dated on Nov. 1st 1993:
Symbols of danger: Xi irritant
Ingredients: not applicable
R-phrases: R 36/38: irritating to eyes and skin
S-phrases: S 1 : to be kept under lock and key
S 2 : keep out of reach of children
S 26: avoid contact with eyes - in case of contact with eyes, immediately flush with water and see an oculist
S 46: in case of ingestion immediately see a physician and show the packaging or label
National Prescriptions: water hazard class (WGK): 1

16. Other Information

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.
Since ProMinent cannot anticipate or control the conditions under which this product may be used, each user must, before using this product, assess and control the risks arising from their use of this product.