SAFETY DATA SHEET

N-2-HYDROXYETHYLPIPERAZINE-N`-2-ETHANESULPHONIC ACID, HEMISODIUN SALT [HEPES, HEMISODIUM]Page 1

Issued: 11/04/2006

Revision No: 1

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

Product name: N-2-HYDROXYETHYLPIPERAZINE-N`-2-ETHANESULPHONIC ACID, HEMISODIUN SALT

[HEPES, HEMISODIUM]

CAS number: 103404-87-1

Product code: BI5940

Company name: Apollo Scientific Ltd

Bredbury, Stockport, SK6 2QR, Tel 0161 406 0505

2. HAZARDS IDENTIFICATION

Main hazards: Irritating to eyes, respiratory system and skin.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients: N-2-HYDROXYETHYLPIPERAZINE-N`-2-ETHANESULPHONIC ACID, HEMISODIUN SALT

[HEPES, HEMISODIUM] >90%

4. FIRST AID MEASURES (SYMPTOMS)

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause

coughing or wheezing.

4. FIRST AID MEASURES (ACTION)

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash

immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Carbon dioxide. Dry

chemical powder. foam

Exposure hazards: In combustion emits toxic fumes.

Protection of fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin

and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from

downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not create

dust.

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Environmental precautions: Do not discharge into drains or rivers.

Clean-up procedures: Transfer to a closable, labelled salvage container for disposal by an appropriate method.

7. HANDLING AND STORAGE

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do

not handle in a confined space. Avoid the formation or spread of dust in the air. only use in

fume hood

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Respiratory

protective device with particle filter.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

State: Powder

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to avoid: Store protected from moisture and heat

Materials to avoid: Strong oxidising agents. Strong acids.

Haz. decomp. products: In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Chronic toxicity: MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

Routes of exposure: Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

12. ECOLOGICAL INFORMATION

Mobility: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Other adverse effects: Data not known

13. DISPOSAL CONSIDERATIONS

Disposal operations: MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND

FEDERAL REGULATIONS

Disposal of packaging: Dispose of as special waste in compliance with local and national regulations Observe all

federal, state and local environmental regulations.

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NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. TRANSPORT INFORMATION

ADR / RID

UN no: Not Classified.

IMDG / IMO

UN no: Not Classified.

IATA / ICAO

UN no: Not Classified.

15. REGULATORY INFORMATION

Hazard symbols: Irritant.



Risk phrases: R36/37/38: Irritating to eyes, respiratory system and skin.

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.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all

applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall

be used only as a guide. This company shall not be held liable for any damage resulting from

handling or from contact with the above product.