

PSDS

SENSORIC ACID ELECTROLYTE

Product Safety Datasheet

1. Product Name / Chemical Identification

Electrochemical sensors for detection of toxic gas.

CO 2E 300	CO 3E 300	CO 3E 500 S	H2 3E 1%	H2 3E 4%
H2S 3E 50 S	H2S 3E 100	H2S 3E 100 S	H2S 3E 2000 S	HCl 3E 30
NO 3E 100	THT 3E 50			

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2. Composition / Information on Ingredients

ABS plastic housings, proprietary noble metal catalyst electrodes, acid electrolytes: sulfuric acid or phosphoric acid.

THT 3E 50 additionally glass wool filter impregnated with lead acetate.

H2 3E 1% additionally glass wool filter impregnated with silver nitrate.

3. Hazards Identification

The electrolyte inside the sensor constitutes the main potential hazard. This may leak out should the housing be damaged or tampered with.

Relevant for **THT 3E 50 only**: Ingestion or direct skin contact with the lead acetate containing filter should be avoided. Wear neoprene or polyethylene gloves, safety goggles and clothing to protect skin.

Relevant for **H2 3E 1% only**: Ingestion or direct skin contact with the silver nitrate containing filter should be avoided. Wear neoprene or polyethylene gloves, safety goggles and clothing to protect skin.

3.1. Electrolyte

3.1.1 Inhalation of electrolyte:

Inhalation is not an expected hazard unless heated to high temperatures. Mist or vapour inhalation can cause irritation to the nose, throat, and upper respiratory tract.

3.1.2. Ingestion of electrolyte:

Corrosive. May cause sore throat, abdominal pain, nausea, and severe burns of the mouth, throat and stomach.

3.1.3. Skin or eye contact of electrolyte:

Corrosive. May cause redness, pain, blurred vision, and eye burns.

3.1.4. Aggravation of pre-existing conditions:

Persons with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance.

3.2. Lead acetate filter - only relevant to THT 3E 50

3.2.1 Hazards - Lead Actetate THT 3E 50 filter:

Exposure can cause brain damage. May cause damage to blood-forming, nervous, urinary and reproductive systems. Systems of exposure include loss of appetite, metallic taste in the mouth, anxiety, constipation, nausea, pallor, excessive tiredness, weakness, insomnia, headache, nervous irritability, muscle and joint soreness, tremors, dizziness and abdominal pain.

3.2.2. Skin or eye contact - Lead Actetate THT 3E 50 filter:

May cause skin irritation.

3.2.3. Aggravation of pre-existing conditions - Lead Actetate THT 3E 50 filter:

Exposure is more likely to cause a problem for those suffering from diseases of the blood-forming, nervous, urinary and reproductive systems. Exposure to lead may result in injury to a developing fetus.

3.3. Silver nitrate filter - only relevant to H2 3E 1%

3.3.1 Hazards - Silver nitrate H2 3E 1% filter:

May cause burns and is dangerous to the eyes. If swallowed, it causes internal damage due to absorption into the blood, followed by deposition of silver in various tissues. May cause black stains on the skin, which, however, wear off in a few days. May intensify fire.

3.3.2. Skin or eye contact - Silver nitrate H2 3E 1% filter:

Corrosive. Can cause blurred vision, redness, pain, severe tissue burns and eye damage.

3.3.3. Aggravation of pre-existing conditions - Silver nitrate H2 3E 1% filter:

Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

4. First-Aid Measures

4.1. In case of leakage and:

4.1.1. Eye contact with electrolyte:

Irrigate thoroughly with water for at least 15 minutes. Obtain medical advice.

4.1.2. Inhalation of electrolyte:

Remove to fresh air. Rest and keep warm. Obtain medical advice.

4.1.3. Skin contact with electrolyte:

Immediately flush the skin thoroughly with water for at least 15 minutes. Remove contaminated clothing and wash before re-use. Obtain medical advice if continued irritation.

4.1.4. Ingestion of electrolyte:

If swallowed DO NOT INDUCE VOMITING. Wash out mouth thoroughly with water and 1.give plenty of water to drink. Obtain medical advice.

4.2. In case of physical damage and:

4.2.1. Eye contact with lead acetate THT 3E 50 filter:

Irrigate thoroughly with water. Obtain medical advice.

4.2.2. Inhalation of lead acetate, fumes or dust from lead acetate THT 3E 50 filter:

Remove to fresh air. Obtain medical advice.

4.2.3. Skin contact with lead acetate THT 3E 50 filter:

Immediately flush the skin thoroughly with water for at least 15 minutes. Remove contaminated clothing and wash before re-use. Obtain medical advice if continued irritation.

4.2.4. Ingestion of lead acetate THT 3E 50 filter:

If swallowed and individual is conscious, induce vomiting. Obtain medical attention.

4.3. In case of physical damage and:

4.3.1. Eye contact with silver nitrate H2 3E 1% filter:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

4.3.2. Inhalation of silver nitrate fumes or dust from silver nitrate H2 3E 1% filter:

If breathed in, move person into fresh air. Consult a physician.

4.3.3. Skin contact with silver nitrate H2 3E 1% filter:

Take off contaminated clothing and shoes immediately. Wash with soap and plenty of water. Consult a physician.

4.3.4. Ingestion of silver nitrate H2 3E 1% filter:

Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. Fire Fighting Measures

5.1. Fire:

Not considered to be a fire hazard.

5.2. Explosion:

Not considered to be an explosion hazard.

5.3. Fire extinguishing media:

Use any means suitable for extinguishing surrounding fire.

6. Accidental Release Measures

6.1. Damage

Should any Sensoric gas sensor be so severely damaged or tampered with that the leakage of the contents occurs then the following procedures should be adopted:

- Avoid skin contact with any liquid or internal component through the use of protective gloves.
- Disconnect Sensoric gas sensor if it is attached to any equipment.
- Use copious amounts of clean water to wash away any spilt electrolyte, particularly important in equipment because of the corrosive nature of the electrolyte.
- Observe first aid measures in case of eye contact, inhalation, skin contact or ingestion of electrolyte.

7. Handling and Storage

Must not be exposed to temperatures outside the range specified on the specification sheet. Should not be exposed to organic vapors, which may cause physical damage to the body of the sensor. Must not be stored in areas containing organic solvents or in flammable liquid stores.

8. Exposure Controls / Personal Protection

None in normal operation

9. Physical and Chemical Properties

- Colour coded sensors in plastic housing with connection pins or flying leads
- Sensor is a sealed unit

10. Stability and Reactivity

N/A

11. Toxicological Information

Electrolyte is corrosive to eyes, respiratory system and skin.

12. Ecological Information

Harmful effect on aquatic organisms. Toxic effect on fish and algae.

13. Disposal Considerations

Contains toxic compounds irrespective of physical condition. Should be disposed of according to local waste management requirements and environmental legislation. Should not be burnt since they may evolve toxic fumes.

14. Transport Regulations

Sensoric gas sensors are classified as “batteries wet non-spillable” (UN2800). They are transported as per IATA PI 872 and 49CFR 173.159a, and need no special packaging, labels etc. as they are not restricted as per IATA Special Provision A67.

15. Regulatory Information

Hazard Statements

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

Precautionary statement

P280

Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER or doctor/ physician.

The following hazard and precautionary statements are additional for THT 3E 50 (lead acetate filter):

Hazard Statements

H360Df

May damage the unborn child. Suspected of damaging fertility.

H373

May cause damage to organs through prolonged or repeated exposure.

410

Very toxic to aquatic life with long lasting effects.

Precautionary statement

P201

Obtain special instructions before use.

P273

Avoid release to the environment.

P308 + P313

If exposed or concerned: Get medical advice/attention.

P501

Dispose of contents/container to an approved waste disposal plant.

**The following hazard and precautionary statements are additional for
H2 3E 1% (silver nitrate filter):**

Hazard Statements

H272

May intensify fire; oxidizer.

H302

Harmful if swallowed.

H410

Very toxic to aquatic life with long-lasting effects.

Precautionary statement

P220

Keep/Store away from clothing/combustible materials.

P273

Avoid release to the environment.

P501

Dispose of contents/container to an approved waste disposal plant.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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