THE SHEPHERD CHEMICAL COMPANY
4900 BEECH STREET • NORWOOD, OHIO 45212-2398 • 1.513.731.1110 PHONE • 1.513.731.2151 FAX

PRODUCT STEWARDSHIP SUMMARY

Manganese nitrate solutions

1. Chemical identity

- Manganese nitrate, C.A.S. No. 10377-66-9, Chemical formula $Mn(NO_3)_2$
- Water, C.A.S. No. 7732-18-5, Chemical formula H_2O
- Nitric Acid, C.A.S. No. 7697-37-2, Chemical formula HNO_3

2. Uses and Applications

Manganese nitrate solutions have a variety of applications in electronics, metal treatment, and in colorants.

3. Physical / Chemical Properties

Manganese nitrate solutions are light pink transparent liquids with a slight odor of nitric acid. They are normally stable. Manganese nitrate solutions are corrosive and may produce oxides of nitrogen upon thermal decomposition.

4. Globally Harmonized System (GHS) Classifications

Danger. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause damage to organs (brain) through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

5. Exposure

Exposure to manganese nitrate solutions may occur in industrial applications where engineering controls have failed or are not in place. Exposure can also result when safe work procedures are not followed, or workers do not use personal protective equipment. Exposure to manganese nitrate solutions may occur during environmental releases if response operations are not conducted properly or in a timely manner.

6. Risk Management

Engineering controls such as exhaust ventilation, dedicated closed systems, leak detection, welded joints, and properly designed storage equipment are recommended to minimize the risk of exposure to manganese nitrate solutions. Safe work practices and worker training on the handling of corrosive liquids is also recommended. Personal protective equipment such as safety glasses, impervious gloves, respirators, and work uniforms are necessary to prevent worker exposure. In the event of an environmental release of manganese nitrate solutions, emergency personnel should follow appropriate emergency response guidelines for corrosive liquids and wear adequate protective equipment to minimize exposure during response operations.

7. Additional Information

- The Shepherd Chemical Company Material Safety Data Sheets, *www.shepchem.com*
- Hazardous Substance Data Bank (HSDB), *http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB*

8. Contact Information

For more information, call (513) 458-6847 or email *bpelsor@shepchem.com*