

Material Safety Data Sheet

Revision Date: 04/22/2007
Z20000000329/Version: 1.0
Print Date: 11/09/2010
Page: 1/5

1. Identification of the substance/mixture and of the company/undertaking

Product name: DOH

Product code: 10005382

Supplier: Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608; Carestream Health Canada Company, 6 Monogram Place, Suite 200, Toronto, Ontario, M9R 0A1

For Emergency Health Information call, (800) 424-9300

For other information contact 800-328-2910.

Synonyms: None.

2. Hazards identification

WARNING!

MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA

MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA

MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA

HARMFUL IF INHALED OR SWALLOWED

CAUSES EYE IRRITATION

POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES

HMIS II Hazard Ratings:

Health - 2*, Flammability - 1, Reactivity (Stability) - 0

NFPA Hazard Ratings:

Health - 2, Flammability - 1, Instability - 0

NOTE: HMIS II and NFPA hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. An asterisk (*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
100	1,4-Benzenediol, 2,5-bis(1,1,3,3-tetramethylbutyl)- (903-19-5)

4. First aid measures

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention.

Eyes: Rinse immediately with plenty of water for at least 15 minutes. Get medical attention.

Material Safety Data Sheet

Revision Date: 04/22/2007
Z20000000329/Version: 1.0
Print Date: 11/09/2010
Page: 2/5

Skin: Wash off with soap and water. Get medical attention if symptoms occur.

Ingestion: Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

5. Fire-fighting measures

Extinguishing Media: water spray, carbon dioxide (CO₂), dry chemical.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Hazardous Combustion Products: Carbon oxides

Unusual Fire and Explosion Hazards: Dust may form explosive mixture in air.

6. Accidental release measures

Methods for cleaning up: Shovel into suitable container for disposal. Avoid dust formation. Clean surface thoroughly to remove residual contamination.

7. Handling and storage

Personal precautions: Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Dust may form explosive mixture in air. Minimize dust generation and accumulation. Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Refer to NFPA Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries." Keep from contact with oxidizing materials.

Storage: Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls / personal protection

Occupational exposure controls: Not established

Ventilation: Good general ventilation should be used. Ventilation should be sufficient so that applicable occupational exposure limits are not exceeded. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances.

Respiratory protection: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type: N95 Particulate Filter. In the United States: If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29CFR 1910.134.

Eye protection: Wear safety glasses with side shields (or goggles).

Material Safety Data Sheet

Revision Date: 04/22/2007
Z20000000329/Version: 1.0
Print Date: 11/09/2010
Page: 3/5

Skin and body protection: It is a good industrial hygiene practice to minimize skin contact. For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and Chemical Properties

Physical form: solid

Colour: white, off-white

Odour: odourless

Specific gravity: No data available

Vapour pressure (at 25.0 °C (77.0 °F)) : 0.0000040 mbar (0.0 mm Hg)

Vapor density (air = 1): not applicable

Volatile fraction by weight: not applicable

Boiling point/range: 298.0 °C (568.4 °F) (Decomposes)

Melting point/range: 132.0 °C (269.6 °F)

Water solubility: No data available

pH: not applicable

Flash point: not applicable, combustible solid

10. Stability and reactivity

Stability: Stable
No exotherm to 400 °C by DSC.

Incompatibility: Strong oxidizing agents.

Hazardous decomposition products: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

General advice: Based on animal data, may cause adverse effects on the following organs/systems: blood, kidney, liver.

Material Safety Data Sheet

Revision Date: 04/22/2007
Z20000000329/Version: 1.0
Print Date: 11/09/2010
Page: 4/5

Inhalation: Harmful if inhaled.

Eyes: Causes eye irritation.

Skin: Expected to be a low hazard for recommended handling.

Ingestion: Harmful if swallowed.

- **Acute Toxicity Data:** Oral LD50 (rat): > 3,200 mg/kg (highest dose tested)
- Oral LD50 (mouse): > 3,200 mg/kg (highest dose tested)
- Dermal LD50: > 5,000 mg/kg (highest dose tested)
- Skin irritation: slight
- Skin Sensitization: negative
- **Mutagenicity/Genotoxicity Data:** Salmonella typhimurium assay (Ames test): negative (in presence and absence of activation)

Definitions for the following section(s): LOEL =lowest-observed-effect level, LOAEL = lowest-observed-adverse-effect, NOAEL = no observed-adverse-effect level, NOEL =no-observed-effect level.

- **Repeated dose toxicity:** Oral (4 weeks, rat): NOEL; 0.01 % (Target organ effects: blood, kidney, liver.)

12. Ecological information

Environmental data is not available.

13. Disposal considerations

Discharge, treatment, or disposal is subject to national, state, provincial, or municipal laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

Not regulated for all modes of transportation.

For more transportation information, go to: <http://ship.carestreamhealth.com>.

15. Regulatory information

U.S. California Prop. 65: none

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): none

American Conference of Governmental Industrial Hygienists (ACGIH): none

U.S. National Toxicology Program (NTP): none

U.S. Occupational Safety and Health Administration (OSHA): none

Material Safety Data Sheet

Revision Date: 04/22/2007
Z20000000329/Version: 1.0
Print Date: 11/09/2010
Page: 5/5

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372:
none

16. Other information

US/Canadian Label Statements:

WARNING!

MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA

MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA

MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA

HARMFUL IF INHALED OR SWALLOWED

CAUSES EYE IRRITATION

POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES

Minimize dust generation and accumulation.

Avoid breathing dust.

Avoid contact with eyes, skin, and clothing.

Ensure adequate ventilation.

Wash thoroughly after handling.

FIRST AID: If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. If inhaled, move to fresh air. Treat symptomatically. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Keep out of reach of children.

For additional information, see Material Safety Data Sheet (MSDS) for this material.

Since emptied containers retain product residue, follow label warnings even after container is emptied.

IN CASE OF FIRE: Use water spray, carbon dioxide (CO₂), dry chemical

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

R-2, S-2, F-1, C-0