

Material Safety Data Sheet

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Assembly Cement HE-104-2

Catalog Number(s): 823 9139 - 25 gram(s)
 828 5512 - 100 gram(s)

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.

Synonym(s): Part A: CIN 10057766, KAN 454774
 Part B: CIN 10057767, KAN 454775

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry No.)

Part A:

75-80 4,4'-(1-methylethylidene)bisphenol polymer with
 (chloromethyl)oxirane (025068-38-6)
20-25 Neodecanoic acid oxiranylmethyl ester (026761-45-5)

Part B:

75-80 Polyamide resin (068410-23-1)
20-25 Polyethylene glycol (025322-68-3)

3. HAZARDS IDENTIFICATION

Part A:

CONTAINS: Neodecanoic acid oxiranylmethyl ester (026761-45-5),
4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane
(025068-38-6)

DANGER!

MAY POLYMERIZE VIOLENTLY AND RESULT IN FIRE AND EXPLOSION
MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA
HARMFUL IF SWALLOWED
CAUSES SKIN AND EYE IRRITATION
MAY CAUSE ALLERGIC SKIN REACTION
CAN DECOMPOSE AT ELEVATED TEMPERATURES

HMIS Hazard Ratings:

Health - * 2, Flammability - 1, Reactivity - 1, Personal Protection - B

NFPA Hazard Ratings:

Health - 3, Flammability - 1, Reactivity (Stability) - 1

Part B:

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CONTAINS: Polyamide resin (068410-23-1)

DANGER!

CAUSES EYE BURNS

HARMFUL IF SWALLOWED

VAPOR IRRITATING TO THE EYES AND RESPIRATORY TRACT

CAUSES SKIN IRRITATION

THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN FULLY INVESTIGATED

HMIS Hazard Ratings:

Health - 3, Flammability - 1, Reactivity - 0, Personal Protection - D

NFPA Hazard Ratings:

Health - 3, Flammability - 1, Reactivity (Stability) - 0

NOTE: HMIS 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. The personal protection index is only intended for general guidance on personal protection equipment (PPE) that is suitable for the potential hazards of the material. PPE (e.g., respirators) may not be needed if engineering controls (e.g., local ventilation) are adequate. An asterisk (*), in the HMIS health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

4. FIRST-AID MEASURES

Inhalation:

Part A: If symptomatic, move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Part B: Move to fresh air. Treat symptomatically. Get medical attention.

Eyes:

Part A: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

Part B: Immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin:

Part A: Immediately remove contaminated clothing and shoes and wash with soap and plenty of water. Get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Part B: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms persist. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion:

Part A: 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.

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Part B: Do NOT induce vomiting. Give victim a glass of water. 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, foam

Special Fire-Fighting Procedures:

Part A: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products. Use water spray to keep fire-exposed containers cool. Fight fire from a protected location.

Part B: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products:

Part A: Carbon dioxide, carbon monoxide (see also Hazardous Decomposition Products section)

Part B: Carbon dioxide, carbon monoxide, oxides of nitrogen

Unusual Fire and Explosion Hazards:

Part A: Fire or high temperatures may cause decomposition. Fire or excessive heat may result in rupture of container due to bulk polymerization.

Part B: None

6. ACCIDENTAL RELEASE MEASURES

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

7. HANDLING AND STORAGE

Personal Precautionary Measures:

Part A: Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Part B: Do not get in eyes and avoid contact with skin and clothing. Avoid breathing vapor. Use with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion:

Part A: Keep from contact with oxidizing materials. Keep away from heat.

Part B: Keep from contact with oxidizing materials.

Storage:

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Part A: Keep container closed. Store in a cool place. Keep away from incompatible substances (see Incompatibility section).

Part B: Keep container closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits: Not established

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type: Organic vapor. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134.

Eye Protection:

Part A: Wear safety glasses with side shields (or goggles).

Part B: Wear safety glasses with side shields (or goggles) and a face shield.

Skin Protection: Wear impervious gloves and protective clothing appropriate for the risk of exposure.

Recommended Decontamination Facilities: Eye bath, washing facilities, safety shower

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid

Color: Not available

Odor: Not available

Specific Gravity (water = 1): Not available

Vapor Pressure: Not available

Vapor Density (Air = 1): Not available

Volatile Fraction by Weight: Not available

Boiling Point: Not available

Solubility in Water: Not available

pH: Not available

Flash Point:

Part A: 136°C (276°F), estimated

Part B: 167°C (332°F), estimated

10. STABILITY AND REACTIVITY

Stability:

Part A: Stable. Safe handling temperatures are dependent on specific conditions of use and are typically substantially below the onset temperature. Consult your technical safety experts. Materials containing

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similar structural groups can decompose if heated above 312°C (594°F).

Part B: Stable

Incompatibility:

Part A: Strong oxidizing agents, strong acids, strong bases. Material can react with polymerization initiators.

Part B: Strong oxidizing agents

Hazardous Decomposition Products:

Part A: Hydrogen chloride

Hazardous Polymerization:

Part A: May polymerize and result in fire and/or explosion; avoid contamination, heat, initiators.

Part B: Will not occur.

11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

General:

Part A: Contains Neodecanoic acid oxiranylmethyl ester. May cause blood disorders based on animal data.

Part B: Contains Polyamide resin. The toxicological properties of this material have not been fully investigated and its handling and use may present additional hazards.

Inhalation:

Part A: Expected to be a low hazard for recommended handling.

Part B: Vapor irritating. May cause irritation to the mucous membranes and upper respiratory tract.

Eyes:

Part A: Causes irritation.

Part B: Causes burns. Vapor causes eye irritation and tearing.

Skin:

Part A: Causes irritation. May cause allergic skin reaction.

Part B: Causes irritation.

Ingestion:

Part A: Harmful if swallowed.

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Part B: Harmful if swallowed. May cause burns of the gastrointestinal tract if swallowed.

12. ECOLOGICAL INFORMATION

This material has not been tested for environmental effects.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

- Material(s) known to the State of California to cause cancer: None
- Material(s) known to the State of California to cause adverse reproductive effects: 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
- National Toxicology Program (NTP): None
- Occupational Safety and Health Administration (OSHA): None
- Chemical(s) subject to the reporting requirements of 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:

Part A:

CONTAINS: Neodecanoic acid oxiranylmethyl ester (026761-45-5);
4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane
(025068-38-6)

DANGER!

MAY POLYMERIZE VIOLENTLY AND RESULT IN FIRE AND EXPLOSION
MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA
HARMFUL IF SWALLOWED
CAUSES SKIN AND EYE IRRITATION
MAY CAUSE ALLERGIC SKIN REACTION
CAN DECOMPOSE AT ELEVATED TEMPERATURES

Store in a cool place.
Avoid heat or contamination.
Avoid breathing mist or vapor.

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Avoid contact with eyes, skin, and clothing.
Use with 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. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. In case of skin contact, immediately wash with soap and plenty of water. Get medical attention. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Keep out of reach of children.

Do not handle or use until safety precautions in Material Safety Data Sheet (MSDS) have been read and understood

Part B:

CONTAINS: Polyamide resin (068410-23-1)

DANGER!
CAUSES EYE BURNS
HARMFUL IF SWALLOWED
VAPOR IRRITATING TO THE EYES AND RESPIRATORY TRACT
CAUSES SKIN IRRITATION
THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN FULLY INVESTIGATED

Do not get in eyes and avoid contact with skin and clothing.
Avoid breathing vapor.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

FIRST AID: If swallowed, do NOT induce vomiting. Give victim a glass of water. 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 immediately. In case of skin contact, immediately wash with soap and plenty of water. Get medical attention if symptoms persist. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Keep out of reach of children.

Do not handle or use until safety precautions in Material Safety Data Sheet (MSDS) have been read and understood.

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.

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A:R-1, S-2, F-1, C-1ZT
B:R-2, S-3, F-1, C-0