

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 09/01/2010

Reviewed on 09/01/2010

1 Identification of substance

- **Product details**
- **Trade name:** Lapox B-11
- **Article number:**
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
- **Application of the substance / the preparation** Epoxy resin
- **Manufacturer/Supplier:**
Atul Limited
Polymers Division; PP-Site;
Atul-396 020
State: Gujarat
INDIA
Contact: + 91 2632 230 000
Web Site: www.atul.co.in
- **Information department:** Please contact Safety Department <product_safety@atul.co.in>
- **Emergency information:** During normal opening times: +91 2632 230269

2 Composition/Data on components

- **Chemical characterization:**
- **CAS No. Description**
25068-38-6 [Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)]
- **Identification number(s)**
- **NLP Number:** 500-033-5
- **Index number:** 603-074-00-8

3 Hazards identification

- **Hazard description:**



Xi Irritant
N Dangerous for the environment

- **Information pertaining to particular dangers for man and environment:**
R 36/38 Irritating to eyes and skin.
R 43 May cause sensitisation by skin contact.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Contains epoxy constituents. See information supplied by the manufacturer.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· GHS label elements

**Warning**

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H317 - May cause an allergic skin reaction.



H411 - Toxic to aquatic life with long lasting effects.

· Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

· Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

· Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact: Immediately wash with water and soap and rinse thoroughly.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

· Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **For safety reasons unsuitable extinguishing agents:**
 - Water spray
 - Extinguishing powder
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
 - Mount respiratory protective device.
 - Remove persons from danger area.
- **Measures for environmental protection:**
 - Inform respective authorities in case of seepage into water course or sewage system.
 - Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
 - Large spills: In a clean area, dike and recover for reuse. Keep out of sewars and waterways. Dispose of contaminated material.
 - Small spills: Use absorbent pad or mix with absorbent material and dispose

7 Handling and storage

- **Handling:**
 - **Information for safe handling:** Store in cool, dry place in tightly closed receptacles.
 - **Information about protection against explosions and fires:** Protect from heat.
- **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
 - Store only in the original receptacle.
 - Store in a cool location.
 - **Information about storage in one common storage facility:**
 - Do not store together with oxidizing and acidic materials.
 - Store away from oxidizing agents.
 - **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
 - **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
 - **Breathing equipment:** Not required.
 - **Protection of hands:**



Protective gloves

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

Form:	Liquid
Color:	Colorless
Odor:	Characteristic

- **Change in condition**

Boiling point/Boiling range: >200°C (>392°F)

- **Flash point:** >200°C (>392°F)

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density at 25°C (77°F):** 1.15 - 1.20 g/cm³

- **Solubility in / Miscibility with Water:** Insoluble.

- **pH-value:** Neutral

- **Viscosity:**
Dynamic at 25°C (77°F): 10.000 - 12.000 mPas (Brookfield DV II)

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Materials to be avoided:** Strong Oxidising agents, Strong Alkali, Strong Bases, Amines

- **Dangerous reactions**

Reacts with amines with exothermic reaction liberating heat and fumes

- **Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

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11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

12 Ecological information

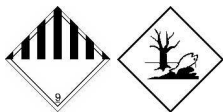
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **General notes:**
 Water hazard class 2 (Assessment by list): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms

13 Disposal considerations

- **Product:**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 9 Miscellaneous dangerous substances and articles
- **Danger code (Kemler):** 90
- **UN-Number:** 3082
- **Packaging group:** III
- **Label:** 9

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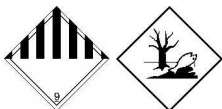
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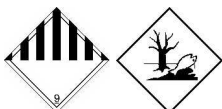
· **Description of goods:** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

· **Maritime transport IMDG:**



· **IMDG Class:** 9
 · **UN Number:** 3082
 · **Label:** 9
 · **Packaging group:** III
 · **EMS Number:** F-A,S-F
 · **Marine pollutant:** YES
 · **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. [reaction product bisphenol-A (epichlorohydrin) epoxy resin (number average molecular weight ≤ 700)]

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 9
 · **UN/ID Number:** 3082
 · **Label:** 9
 · **Special marking:** Symbol (fish and tree)
 · **Packaging group:** III
 · **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. [reaction product bisphenol-A (epichlorohydrin) epoxy resin (number average molecular weight ≤ 700)]

· **UN "Model Regulation":** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

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- **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**



Xi Irritant

N Dangerous for the environment

- **Risk phrases:**

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Safety phrases:**

2 Keep out of the reach of children.

28 After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer).

37/39 Wear suitable gloves and eye/face protection.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

- **Special labeling of certain preparations:**

Contains epoxy constituents. See information supplied by the manufacturer.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department

- **Contact:**

E-mail : product_safety@atul.co.in

Phone : +91 2632 230269

Contact Person : Mr. A. Venkaiah

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)