

SPI Supplies Division

Structure Probe, Inc.

P.O. Box 656 West Chester, PA 19381-0656 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

spi3spi@2spi.com

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: September 12, 2016

02821-AA, 02821-CA, 02821-Na
SPI-Chem™ BDMA; N, N-Dimethylbenzylamine

Component of:
02658-AA, 02658-AB
SPI-Chem™ Araldite® 502/BDMA Embedding Resin Kit
and
02663-AB SPI-Pon™ 812 Kit, BDMA Formulation, with
DDSA and NMA

Section 1.1: Identification

Chemical Name/Synonyms N,N-Dimethylbenzylamine; N-Benzyl dimethylamine; BDMA

Product or Trade Name BDMA, N-Benzyl dimethylamine

CAS #'s 103-83-3

Chemical Formula..... C₆H₅CH₂N(CH₃)₂

Section 1.2: Relevant Uses/Restrictions

Laboratory chemical for scientific research and development. Accelerator for certain epoxy resin formulations.

Section 1.3: Supplier of the Safety Data Sheet

SPI Supplies Division

Structure Probe, Inc.

P.O. Box 656 West Chester, PA 19381-0656 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

sds@2spi.com

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

Section 1.4: Emergency telephone number

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

Classification of the substance in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquid (Category 3) (Flammable liquid and vapor)

Skin corrosion (Category 1B) (Causes severe skin burns and eye damage)

Acute toxicity (Category 4) (Harmful if swallowed)

Acute Toxicity (Category 4) (Harmful in contact with skin)

Acute toxicity (Category 4) (Harmful if inhaled)

2.2 Label elements

Pictogram



Signal Word: Danger

Hazard statements:

H226 Flammable liquid and vapor.

H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

Precautionary statements:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. – No smoking.

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

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

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

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P405 Store locked up.

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

WHMIS classification

B3 – Combustible liquid

D2B – Toxic material causing other toxic effects

E – Corrosive material



2.3 Other Hazards:

Results of PBT and vPvB assessment:

PBT: Not applicable
vPvB: Not applicable

Hazardous Material Information System USA

Health 3
Fire Hazard 2
Reactivity 1
Personal Protection

NFPA Rating (estimated)

Health 3
Flammability 2
Reactivity 0

Section 3: Composition

3.1 Substances:

N-Benzylidimethylamine	98+ %	
CAS# 103-83-3	EC# 203-149-1	Index Number: 612-074-00-7
RTECS# DP4500000		

Section 4: First Aid Measures

4.1 Description of first aid measures:

General information: Immediately remove any clothing soiled by the product.

After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.

After skin contact: Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

After eye contact: Rinse opened eye for several minutes under running water.
Then consult a physician.

After swallowing: Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns.
Causes eye damage.
Harmful if swallowed.
Harmful if inhaled.

Harmful in contact with skin.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

Section 5: Fire Fighting Measures

5.1 Suitable extinguishing media: Carbon dioxide, extinguishing powder or water spray.

Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture:

If this product is involved in a fire, carbon monoxide, carbon dioxide, and Nitrogen oxides (NO_x) can be released.

5.3 Advice for firefighters:

Special protective equipment and precautions for firefighters:

Wear self-contained respirator.

Wear fully protective impervious suit.

Section 6: Accidental Release Measures

6.1 Personal precautions:

Protective measures:

Wear protective equipment.

Keep unprotected people away.

Ensure adequate ventilation.

Keep away from ignition sources.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose of contaminated material as waste according to Section 13.

Ensure adequate ventilation.

Keep away from ignition sources.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Handle under dry protective gas.

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires:

- Protect against electrostatic charges.
- Fumes can combine with air to form an explosive mixture.
- Keep ignition sources away.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

- Store away from air.
- Do not store together with acids.
- Store away from oxidizing agents.

Further information about storage conditions:

- Store under dry inert gas.
- This product is air sensitive.
- Keep container tightly sealed.
- Store in cool, dry conditions in well sealed containers.

7.3 Specific end uses

Accelerator for certain epoxy resin formulations.

These items are not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute

Workplace exposure limits: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Biological limit values: No available information.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.

8.2.2 Individual protection measures

Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.

8.2.3 Environmental exposure controls

Breathing equipment: Use suitable respirator when high concentrations are present.
Recommended filter for short term use: Use a respirator with multi-purpose combination (US) or type ABEK (EN 14387) as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

Protection of hands:

Use impervious gloves.
Check prior to each use for their proper condition.
Material of gloves: Nitrile rubber, NBR (nitrile butadiene rubber)
Penetration time of glove material: 480 minutes
Glove thickness: 0.4 mm

Eye Protection:

Tightly sealed goggles
Full face protection

Body protection:

Protective work clothing

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Liquid

Odor: Not determined

Odor threshold: Not determined

pH: Not determined

Melting point/Freezing point: -75 °C (-103 °F)

Boiling point/Boiling point range: 183-184 °C (361-363 °F)

Flash Point: 54 °C (129 °F)

Evaporation rate: Not determined

Flammability (solid, gas): Not determined

Upper/lower flammability or explosive limits: Not determined

Vapor Pressure: 2.8 hPa (2mm Hg) at 20 °C (68 °F)

Density at 20 °C (68 °F): 0.9 g/cm³ (7.511 lbs/gallon)

Vapor density: Not determined

Relative density: Not determined

Solubility in / Miscibility with water: Not miscible or difficult to mix

Partition coefficient (n-octanol/water): Not determine

auto-ignition temperature: Not determined

Decomposition temperature: Not determined

Viscosity: Not determined

Explosive properties: Product is not explosive. However, formation of explosive air/vapor mixtures is possible.

Oxidizing Properties: No information available

9.2 Other information: No further relevant information available.

Section 10: Stability and Reactivity

10.1 Reactivity: No information known.

10.2 Chemical Stability: Stable under recommended storage conditions.

Thermal decomposition/ conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

10.3 Possibility of Hazardous Reactions: Reacts with strong oxidizing agents.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: Acids; Air; Oxidizing agents

10.6 Hazardous decomposition products: Carbon monoxide; Carbon dioxide; Nitrogen oxides

Section 11: Toxicological Information

11.1 Information on toxicological effects

a. acute toxicity

Harmful if inhaled.

Harmful in contact with skin.

Harmful if swallowed.

Danger through skin absorption.

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

b. skin corrosion/irritation

Causes severe skin burns.

c. serious eye damage/irritation

Causes serious eye damage.

d. respiratory of skin sensitization

No sensitizing effects known.

e. germ cell mutagenicity

No effects known.

f. carcinogenicity

No classification data on carcinogenic properties of this material is available from The EPA, IARC, NTP, OSHA or ACGIH.

g. reproductive toxicity

No effects known

h. STOT-single exposure

No effects known.

i. STOT-repeated exposure

No effects known.

j. aspiration hazard

No effects known.

k. subacute to chronic toxicity: The registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

RTECS#: DP450000

l. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Carcinogenic categories

OSHA-Ac: Substance is not listed.

Section 12: Ecological Information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available

12.4 Mobility in soil: No further relevant information available.

12.5 Results of PBT and vPvB assessment: Not applicable.

12.6 Other adverse effects: No further relevant information available.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Recommendation: Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings: Disposal must be made according to official regulations.

Section 14: Transport Information

DOT
IATA
IMDG

14.1 UN number:

DOT, IATA, IMDG: UN2619

14.2 UN proper shipping name:

DOT: Benzyldimethylamine

IATA, IMDG: BENZYL DIMETHYLAMINE

14.3 Transport hazard class(es):

DOT:



Class 8 Corrosive substances

Label: 8 + 3

Class 8 (CF1) Corrosive substances

Label 8 + 3

IATA, IMDG:



Class 8 Corrosive substances

Label 8 + 3

14.4 Packing Group:

DOT, IATA, IMDG: II

14.5 Environmental hazards:

DOT:

Marine Pollutant: No

14.6 Special precautions for user: Warning: Corrosive substances

EMS Number: F-E, S-C

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

National Regulations:

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313: Substance is not listed.

California Prop 65:

Chemicals known to cause cancer: Substance is not listed.

Developmental toxicity: Substance is not listed.

Developmental toxicity, female: Substance is not listed.

Developmental toxicity, male: Substance is not listed.

Other regulations, limitations and prohibitive regulations:

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006:

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No. 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorization of use):

Substance is not listed.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

Date of Preparation: September 12, 2016

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
cP: Centipoise
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulative and Toxicological
vPvB: very Persistent and very Bio-accumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
STEL: Short Term Exposure Limit

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however SPI Supplies and Structure Probe, Inc. make no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assume no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. Be aware of the Structure Probe, Inc. Copyright Policy. Structure Probe, Inc. grants a nonexclusive license to make unlimited copies of this safety sheet for internal use only. Quite obviously, this information would pertain only to this material when purchased from SPI Supplies as product from other sources, with other ingredients and impurity levels could have substantially different properties.