# Safety Data Sheet

## 1. Product and Company Identification

Product Name: **NUPLABOND® B**
Product Part #: PN 0203011
Material Uses: Adhesive, sealing, and coating
(M)SDS#: 213A-20151104
Validation Date: Nov-04-2015
Supplier/Manufacturer: Specialty Polymers & Services, Inc. (SP&S, Inc.)
28064 Avenue Stanford, Suite F Valencia, CA 91355
Non-emergency phone number: (661) 294-1790 (7AM – 5PM PST)
E-mail: msds@spolymers.com

In case of emergency: Chemtrec (800) 424-9300 or (703) 527-3887

## 2. Hazards Identification

**GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE:**

| | | | |
|---|---|---|---|
| Skin corrosion: | Category 2, H315 | Eye damage: | Category 2, H319 |
| Skin sensitization: | Category 1, H317 | | |

**GHS LABEL ELEMENTS:**

**HAZARD SYMBOLS:**

**SIGNAL WORDS:** Warning!

**HAZARD STATEMENTS:**

H315 Causes skin irritation
H317 May Cause an allergic skin reaction
H319 Causes serious eye irritation

**PRECAUTIONARY STATEMENTS:**

**PREVENTION:**
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mists.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves, clothing, and eye/face protection.

**RESPONSE:**
P301+P330+P331+P312 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call POISON CENTER and/or doctor if you feel unwell.
P303+P361+P634+P353+P352 IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical attention.
P391 Collect spillage.

**STORAGE:**
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

**DISPOSAL:** P501 Dispose of contents and containers in accordance with local, regional and international regulations.

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – Annex III

See toxicological information (section 11)
General Information: Read entire MSDS for a more thorough evaluation of the hazards

## 3. Composition / Information on Ingredients

| Name | CAS Number | % |
|---|---|---|
| Bispenol A epoxy resin | 25068-38-6 | 60 - 90 |
| Propane, 1,2-Epoxy-3-(Tolyoxy)- | 26447-14-3 | 10 - 30 |

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

## 4. First Aid Measures

| | |
|---|---|
| Eye Contact: | Check for and remove any contact lenses. Immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get immediate medical attention. |
| Skin Contact: | In case of contact, wash affected areas with plenty of water, and soap, if available, for several minutes. Remove and clean contaminated clothing and shoes before re-use. Get medical attention if irritation occurs. |
| Inhalation: | Move exposed person to fresh air. If not breathing, give artificial respiration or oxygen. If breathing is difficult, transport to medical care and, if available, give supplemental oxygen. Loosen tight clothing such as a collar, tie, belt, or waistband. Get immediate medical attention. |
| Ingestion: | Wash out mouth with water. If swallowed dilute by giving two (2) glasses water to drink. Do not induce vomiting until direct to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical attention. |
| Note to physician: | No specific treatment. Treat symptomatically. Call poison control center if large quantities were ingested |

## 5. Fire-Fighting Measures

| | |
|---|---|
| Flash point: | >252°C (>486°F) closed cup |
| Hazardous Thermal Decomposition Products: | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, metal oxides and other oxides. |
| Extinguishing Media: | Carbon dioxide, foam, dry chemical, water spray as suitable for the surrounding fire. |
| Special Exposure Hazards: | Promptly isolate the scene by removing all persons from the vicinity of the fire. No actions shall be taken involving any personal risk or without suitable training. |
| Special Protective equipment for fire-fighters: | No Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

## 6. Accidental Release Measures

| | |
|---|---|
| Personal Precautions: | No actions shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering area. Do not touch or walk through spilled material. Avoid breathing vapor or mist and provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8). |
| Environmental Precautions: | Avoid dispersal of spilled material and runoff that leads to contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution. |
| Methods of Clean Up: | Stop leak if without risk. Move containers from spill area. Approach spill from up wind if possible. Prevent spill from entering sewers, rivers and other water courses, basements, or confined areas. Wash into effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite, or diatomaceous earth) and place in container for disposal according to local regulations. Dispose of only using a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information. |

## 7. Handling and Storage

| | |
|---|---|
| Handling: | Wear appropriate personal protective equipment (see Section 8) when handling. Eating, drinking, and smoking should be prohibited in areas where chemical are handled, stored, or processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should be employed in processes where this material is used. Keep in the original container or a suitable alternate made from a compatible material. Keep all containers tightly closed when not in use. Empty containers retain product residue and should be disposed of properly. Do not reuse empty containers for other purposes or to hold other materials. |
| Storage: | Store in accordance with local regulations. Store in original containers, at 10°C - 35°C. Keep away from incompatible materials (see Section 10) and food and drink. Keep all containers tightly closed when not in use and tightly re-seal after use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

## 8. Exposure Controls / Personal Protection

| | |
|---|---|
| Recommended Monitoring Procedures: | If this product contains ingredients with exposure limits, personal, workplace, atmospheric, or biological monitoring may be required to determine the effectiveness of the ventilation system or other control measures and/or to determine whether it is necessary to use respiratory protective equipment. It will also be necessary to reviewed national guidance documents for determining how to handle and relevant Hazardous Substances |
| Engineering measures: | No special ventilation requirements are necessary for this product. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below the recommended or statutory limits |
| Hygiene measures: | Wash hands, forearms, and face thoroughly after handling any chemical products, before eating, smoking, and using the lavatory and at the end of the work period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |

**Personal Protection**

| | |
|---|---|
| Respiratory: | In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. |
| Hands: | Chemical Resistant, impervious gloves that comply with an approved safety standard should be worn at all times when handling chemical products if a risk assessment indicates that this is necessary. Consider the parameters specified by the glove manufacture and check gloves during use to ensure they are retaining their protective properties. |
| Eyes: | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts. If contact is possible use chemical splash googles unless a higher degree of protection is required. |
| Skin: | Personal Protective equipment for the body should be selected based on the task being performed and the risks involved. Typical protective equipment includes non-absorbent lab coats, disposable protective sleeves, coats, or whole body suits. See a safety specialist to determine the appropriate level of protection for your task. |
| Environmental Exposure Controls: | Emissions from ventilation or work processes should be checked to ensure they comply with the requirements of environmental regulations. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

## 9. Physical and Chemical Properties

| | | | |
|---|---|---|---|
| Appearance: | Light Yellow to light amber liquid | Odor | Faint odor |
| Boiling Point: | Not determined | Freezing Point: | Not determined |
| Flash Point: | >252°C (>486°F) closed cup | pH: | Not determined |
| Auto-ignition Temperature: | >300°C (>572°F) | Flammable Limits: | Not determined |
| Vapor Pressure: | < 1 mm Hg at 20°C (68 °F) | Water Solubility: | <0.1% |
| Specific Gravity: | 1.14 | Vapor Density: | >1 (Air = 1) |
| Evaporation Rate: | <1 (butyl acetate =1) | VOC: | <1 g/ L (estimated) |
| Viscosity: | ~600 cps | | |

## 10. Stability and Reactivity

Chemical Stability: This product is stable, under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous Polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to Avoid: High temperatures and exposure to strong oxidizing agents, acids, and bases
Hazardous Decomposition Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological Information

Acute Toxicity

| Product/Ingredient Name | Test | Endpoint | Species | Result |
|---|---|---|---|---|
| Bisphenol A epoxy Resin | - | LC0 Inhalation Vapor | Rat – Male | 0.00001 ppm |
| | OECD 402 Acute Dermal Toxicity | LD50 Dermal | Rat – Male & Female | >2000 mg/kg |
| | OECD 420 Acute Oral Toxicity – Fixed Dose | LD50 Oral | Rate – Female | >2000mg/kg |

Irritation / Corrosion

| Product/Ingredient Name | Test | Species | Result |
|---|---|---|---|
| Bisphenol A epoxy Resin | OECD 404 Acute Dermal Irritation/Corrosion | Rabbit | Skin – Mild irritant |
| | OECD 405 Acute Eye Irritation/Corrosion | Rabbit | Eyes – Mild irritant |

Sensitizer

| Product/Ingredient Name | Test | Species | Result |
|---|---|---|---|
| Bisphenol A epoxy Resin | OECD 429 Skin Sensitization: local lymph node assay | Skin / Mouse | Sensitizing |
| | | | |

Mutagenicity

| Product/Ingredient Name | Test | Result |
|---|---|---|
| Bisphenol A epoxy Resin | Experiment – invitro, bacteria, metabolic activation +/- | Positive |
| | Experiment – invitro, mammalian-animal, somatic cells, metabolic activation +/- | Positive |
| | Experiment – invivo, mammalian-animal, germ cells, metabolic activation +/- | Negative |
| | Experiment – invivo, mammalian-animal, somatic cells, metabolic activation +/- | Negative |

Conclusion/ Summary: the weight of scientific evidence indicates that the components of this product are not genotoxic

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH,NTP or OSHA.

Reproductive Toxicity

| Product/Ingredient Name | Test | Species | Maternal Toxicity | Fertility | Developmental Effects |
|---|---|---|---|---|---|
| Bisphenol A Epoxy Resin | OECD 416 Two generation reproduction toxicity study | Rat | Negative | Negative | Negative |

Teratogenicity

| Product/Ingredient Name | Test | Species | Results |
|---|---|---|---|
| Bisphenol A Epoxy Resin | OECD 414 Prenatal developmental Toxicity Study | Rat – Female | Negative – oral |
| | EPA CFR | Rabbit – Female | Negative – dermal |
| | OECD 414 Prenatal developmental Toxicity Study | Rabbit – Female | Negative – oral |

Potential Acute Health Effects

Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.
Skin Contact: Causes skin irritation.
Eye Contact: May be seriously irritating to the eyes.

Potential Chronic Health Effects

| Product/Ingredient Name | Test | Endpoint | Species | Results |
|---|---|---|---|---|
| No Data Available | | | | |

General: Once sensitized, an allergic reaction may occur when subsequently exposed to very low levels
Target Organs: No known significant effects or critical hazards
Carcinogenicity: No known significant effects or critical hazards
Mutagenicity: No known significant effects or critical hazards
Teratogenicity: No known significant effects or critical hazards
Developmental Effects: No known significant effects or critical hazards
Fertility Effects: No known significant effects or critical hazards

## 12. Ecological Information

Environmental Effects: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Water polluting material. May be harmful to the environment if released in large quantities.

Aquatic Ecotoxicity

| Product/Ingredient Name | Test | Endpoint | Exposure | Species | Result |
|---|---|---|---|---|---|
| Bisphenol A epoxy Resin | - | Acute EC50 | 72 hours Static | Algae | 9.4 mg/L |
| | OECD 202 Daphnia Sp. Acute Immobilization Test | Acute EC50 | 48 hours Static | Daphnia | 1.7 mg/L |
| | - | Acute IC50 | 3 hours Static | Bacteria | >100 mg/L |
| | OECD 203 Fish, Acute toxicity test | Acute LC50 | 96 hours Static | Fish | 1.5 mg/L |
| | OECD 211 Daphnia Magna Reproduction test | Chronic NOEC | 21 days Semi-Static | Daphnia | 0.3 mg/L |

Persistence and Degradability

| Product/Ingredient Name | Test | Period | Result |
|---|---|---|---|
| Bisphenol A epoxy Resin | -OECD derived from OECD 301F (Biodegradation test) | 28 days | 5% |

| Product/Ingredient Name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Bisphenol A epoxy Resin | Fresh water 3.58 days – 7.1 days | - | Not readily |

Bioaccumulative potential

| Product/Ingredient Name | Log $P_{ow}$ | BCF | Potential |
|---|---|---|---|
| Bisphenol A epoxy Resin | 3.242 | 31 | Low |

Other adverse effects: No known significant effects or critical hazards

Other information: BOD5: Not determined COD: Not Determined TOC: Not determined

## 13. Disposal Consideration

**Waste Disposal Method:** Disposal of this products, solutions, and by-products should at all times comply with the requirements of environmental and waste disposal legislation and any regional or local authority requirements. Dispose of surplus, non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed on untreated to the sewer system unless this is complaint with all applicable laws and regulations. Incineration by an approved and licensed contractor is the most common disposal method. Packaging materials that and absorbents containing the product can typically be landfilled or incinerated. Contact local authorities to determine the proper means of disposal in your area.

## 14. Transport Information

**DOT (US) Classification:** Not regulated for transportation purposes under 49CFR in non-bulk (less than 450L) when transported by motor vehicle, rail car, or aircraft.

**TDG (Canadian) Classification:** Not regulated for transportation purposes when transported by road or rail.

**IATA – small package sizes:** container sizes of ≤5 L (for liquids) or ≤5 kg (for solids) in a package with a gross weight of 30kg or less can ship as Limited Quantity using packaging instruction Y964 as long as the shipment is complaint with all applicable operator variations. Environmentally hazardous substances markings and UN boxes are not required when shipping using the Limited Quantity exemption and packaging instruction Y964.

**IATA** **ID Number:** UN3082 **Label:** Marine Pollutant
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (epoxy resin)
**Hazard Class:** 9 **Packing Group:** PGIII

## 15. REGULATORY INFORMATION

### US Federal Regulations:

**Occupational Safety and Health Act (OSHA):** This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Resource Conservation and Recovery Act (RCRA):** This product is considered to be a hazardous waste under RCRA (40 CFR 261).

**SARA Title III: Section 304 - CERCLA:** This product does not contain chemicals regulated under Section 304 as extremely hazardous substance(s) for emergency release notification ("CERCLA" List):

**SARA Title III: Section 311/312 - Hazard Communication Standard (HCS):** Immediate (acute) health hazard

Delayed (chronic) health hazard

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product does not contains) a toxic chemical for routine annual Toxic Chemical Release Reporting under section 313 (40 CFR 372).

**TSCA Section 8(b) - Inventory Status:** All chemical(s) comprising this product are listed on the TSCA inventory.

**TSCA Section 12(b) - Export Notification:** This product does not contain chemicals which are subject to Section 12(b) export notification:

## State Regulations:

**California Proposition 65:** This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

## International Regulations:

**REACH Status (EC 1907/2006):** This material has been registered, pre-registered, or is otherwise exempt from registration under REACH.
**REACH Annex XIV (SVHC):** No listed components as of validation date
**Reach Annex XVIII (Restrictions on the manufacture, placing on the market & use of certain dangerous substances, mixtures, and articles):** No list components as of validation date

**WHMIS:** Class D-2B: Material causing other toxic effects

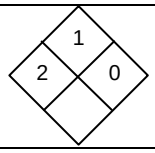
### International Lists:

| | | | |
|---|---|---|---|
| Australia Inventory (AICS): | all components are listed or exempt | Malaysia Inventory (EHS register): | not determined |
| Canadian Inventory (CEPA-DSL): | all components are listed or exempt | New Zealand Inv. of Chem. (NZIoC): | all components are listed or exempt |
| China Inventory (IECSC): | all components are listed or exempt | Philippines Inventory (PICCS): | all components are listed or exempt |
| Japan Inventory (ENCS): | all components are listed or exempt | Taiwan Inventory (CSNN): | not determined |
| Korea Inventory (ECL): | all components are listed or exempt | | |

## 16. OTHER INFORMATION

| Hazardous Material Information System (HMIS) - USA | |
|---|---|
| Health | 2 |
| Flammability | 1 |
| Physical Hazards | 0 |
| Personal Protection | C* |

National Fire Protection Association (USA):




*suggested minimum personal protection equipment. End user must determine appropriateness of these suggestions for their applications and usage conditions.

**Reason Issued:** update
**Prepared By:** Chris Meyer **Approved By:** Chris Meyer Title: Vice President

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THIS PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

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