

IDENTIFICATION

PRODUCT NAME: ADHL-NOVOLAC / PART A

MANUFACTURER/SUPPLIER: Adhesiveslab
235 Rayette Rd, Unit #4
Concord, Ontario Canada L4K 2G1

24 HOUR EMERGENCY NUMBER: 1-800-340-7697

APPLICATION AND USE: Extreme Chemical Resistant Epoxy Coating – Part A

PRODUCT DESCRIPTION: Two-component 100% solids Epoxy Coating (epoxy resin blend)

HAZARDS IDENTIFICATION

GHS CLASSIFICATION - Acute toxicity (oral): Category 4
- Skin corrosion/irritation: Category 2
- Skin sensitization: Category 1
- Chronic aquatic toxicity: Category 2



SIGNAL WORD **WARNING**

HAZARD STATEMENTS - H302 Harmful if swallowed
- H315 Causes skin 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 hands thoroughly after handling
- P272 Contaminated work clothing should not be allowed out of the workplace
- P280 Wear protective gloves/protective clothing/eye protective/face protection

RESPONSE - P332 + P313 If skin irritation occurs: Get medical advice/attention
- P333 + P313 If skin irritation or a rash occurs: Get medical advice/attention
- P362 Take off contaminated clothing and wash before reuse

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

DISPOSAL - P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

IN CASE OF FIRE - Notify your local fire station and inform the location of the fire and characteristics hazard.
- Wear appropriate protective equipment



FIRST AID - P301 + P312: IF Swallowed: Call a POISON CENTRE or doctor/physician if you feel unwell.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

Other hazard which do not result in classification: (NFPA Classification)

o NFPA grade (0~4 level)

- Health: 2 Flammability: 1, Reactivity : 0

COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	C.A.S. #	Concentration
Epoxy phenol novolac resin	0028064-14-4	60-90
2-Methylphenyl Glycidyl Ether	2210-79-9	5-10

SAFETY DATA SHEET

FIRST-AID MEASURES

FIRST-AID MEASURES

EYE CONTACT - In case of contact with eyes,
- Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SKIN CONTACT..... -Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.
- Go to the hospital immediately if symptoms (flare, irritate) occur.
Wash thoroughly after handling.
Wash immediately with plenty of soap and water. Remove and clean all contaminated clothing and launder before reuse.

INHALATION -When exposed to large amounts of steam and mist, move to fresh air.
Take specific treatment if needed.

INGESTION - In the case of overexposure, remove to fresh air. Get medical attention if the victim is in respiratory distress.
About whether I should induce vomiting Take the advice of a doctor
Rinse your mouth with water immediately.
If swallowed, drink two glasses of water. Do not induce vomiting. The material is corrosive. Do not give anything to mouth to an unconscious person. Get prompt medical attention.

ADDITIONAL INFORMATION -Notify medical personnel of contaminated situations and have them take appropriate protective measures.

MOST IMPORTANT SYMPTOMS/ EFFECTS, ACUTE OR DELAYED -Not available.



FIRE-FIGHTING MEASURES

GENERAL FIRE HAZARDS	Combustible liquid; may release vapours that form combustible mixtures at or above the flash point. Toxic gases will form upon combustion.
SUITABLE EXTINGUISHING MEDIA	-Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
UNSUITABLE EXTINGUISHING MEDIA	- Avoid use of water jet for extinguishing
SPECIAL PROTECTION EQUIPMENT FOR FIRE FIGHTERS	-Notify your local firestation and inform the location of the fire and characteristics hazard. -Using a unattended and water devices in case of large fire and leave alone to burn if you do not imperative. -Avoid inhalation of materials or combustion by-products. -Do not access if the tank on fire. -Use appropriate extinguishing measure suitable for surrounding fire. -Keep containers cool with water spray. -Vapour or gas is burned at distant ignition sources can be spread quickly.
HAZARDOUS COMBUSTION PRODUCTS ...	-Carbon dioxide, and carbon monoxide, various hydrocarbons, phenol.

ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES	-Must work against the wind, let the upwind people to evacuate -Move container to safe area from the leak area. -Remove all sources of ignition. -Do not direct water at spill or source of leak -Avoid skin contact and inhalation.
ENVIRONMENTAL PRECAUTIONS	-Prevent runoff and contact with waterways, drains or sewers -If large amounts have been spilled, inform the relevant authorities.
CONTAINMENT AND CLEAN UP	-Large spill: stay upwind and keep out of low areas. Dike for later disposal. - Notification to central government, local government. When emissions at least of the standard amount - Dispose of waste in accordance with local regulation. - Appropriate container for disposal of spilled material collected. - Small leak: sand or other non-combustible material, please let use absorption. - Wipe off the solvent - Dike for later disposal. - Prevent the influx to waterways, sewers, basements or confined spaces.

HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Wash thoroughly after handling
- Avoid direct physical contact
- Avoid contact with incompatible materials.

CONDITIONS FOR SAFE STORAGE

- Do not use damaged containers
- Do not apply direct heat
- Save applicable laws and regulations.
- Avoid direct sunlight
- Keep in the original container.
- Collected them in sealed container.
- Do not eat, drink or smoke when using this product.
- Store away from water and sewer.

EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

DIPROPYLENE GLYCOL METHYL ETHER ... - Not available

APPROPRIATE ENGINEERING CONTROL

- A system of local and/or general exhaust is recommended to keep employee exposure above the Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. The use of local exhaust ventilation is recommended to control emissions near the source.

PERSONAL PROTECTIVE EQUIPMENT:

EYE / TYPE

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

RESPIRATORY PROTECTION

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum.

SKIN PROTECTION/ GLOVES/ CLOTHING ...

- Consider warning properties before use.

OTHER/TYPE

- For unknown Concentration or Immediately Dangerous to Life or Health: Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
- Wear appropriate clothing
- Not available

PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Relative Density: 1.1
Solubility in Water: Insoluble
Boiling Point: n/av
Freezing/Melting Point: n/av
Evaporation Rate: n/av
Vapour Pressure: N/A
Volatile: (voc): approximately zero %
Vapour Density: n/av
Odour: pleasant citric odour
Odour Threshold: N/A
Appearance: Grey Liquid

Viscosity: 3000 cps @ 23oC (73oF)
Hazardous Air Pollutant: None
Flashpoint and Method: 31.7 oC (89oF) (T.C.C.)
Auto ignition Temperature: N/A
Flammable Limits: N/A
pH: Neutral 7
Partition Coefficient (n-octanol/water): N/A
Odour Threshold: No data available
Upper flammability or upper explosive limit: N/A
Lower flammability or lower explosive limit: N/A
Initial boiling point and boiling range: N/A
Decomposition Temperature: N/A

STABILITY AND REACTIVITY

REACTIVITY -This material is stable under recommended storage and handling conditions.

CHEMICAL STABILITY -This material is stable under recommended storage and handling conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:
CONDITIONS TO AVOID -Hazardous Polymerization will not occur.

..... -Avoid contact with incompatible materials and condition.

..... -Avoid: Accumulation of electrostatic charges, Heating, Flames and hot surfaces.

INCOMPATIBLE MATERIALS -Not available

HAZARDOUS DECOMPOSITION PRODUCTS.. -May emit flammable vapour if involved in fire.

ECOLOGICAL INFORMATION

Ingestion: No data is available on the product itself
Ingestion – Components:

- Epoxy phenol novolac resin LD50: >4000 mg/kg Species: Rat
- 2-Methylphenyl Glycidyl Ether LD50: 4,000 mg/kg Species: Rat

Inhalation: No data is available on the product itself
Inhalation – Components:

- Epoxy phenol novolac resin N/A
- 2-Methylphenyl Glycidyl Ether N/A

Dermal: No data is available on the product itself
Dermal – Components:

- Epoxy phenol novolac resin LD50: 10,000 mg/kg Species: Rabbit
- 2-Methylphenyl Glycidyl Ether LD50: >19,200 mg/kg Species: Rabbit

Sensitization:

May cause sensitization of susceptible persons by skin contact. Did not cause allergic skin reactions when tested in mice.

Skin Corrosion/Irritation:

Extremely corrosive and destructive to tissue

Serious eye damage/eye irritation:

May cause irreversible eye damage

Respiratory or skin sensitization:

N/A

Germ Cell Mutagenicity:

N/A

Carcinogenicity:

N/A

Reproductive toxicity:

N/A

TRANSPORTATION INFORMATION

TDG CLASSIFICATION Not regulated
UN No. (IMDG)..... Non Hazmat
Proper shipping name..... Non Hazmat
Hazard Label FLAMMABLE LIQUID
IMDG Packing group..... Non Hazmat

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Specific Gravity: 0.97
Vapour Pressure: n/av
Solubility in Water: Slight
Boiling Point: n/av
Freezing/Melting Point: n/av
Viscosity: 100 cps 23°C (73°F)
Vapour Density: n/av
Evaporation Rate: n/av
Volatile: (voc): zero %
Odour: Characteristic amine odour

Appearance: Clear
Hazardous Air Pollutant: None
Flashpoint and Method: 75 °C (T.C.C.)
Auto ignition Temperature: 350°C
Flammable Limits: 1.1 - 7% by volume
pH: Alkaline (10-11)
Partition Coefficient (n-octanol/water): N/A
Odour Threshold: No Data Available
Upper flammability or upper explosive limit: N/A
Lower flammability or lower explosive limit: N/A

STABILITY AND REACTIVITY

REACTIVITY -This material is stable under recommended storage and handling conditions.

CHEMICAL STABILITY -This material is stable under recommended storage and handling conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:
CONDITIONS TO AVOID -Hazardous Polymerization will not occur.

..... -Avoid contact with incompatible materials and condition.

..... -Avoid: Accumulation of electrostatic charges, Heating, Flames and hot surfaces.

INCOMPATIBLE MATERIALS -Not available

HAZARDOUS DECOMPOSITION PRODUCTS.. -May emit flammable vapour if involved in fire.

TOXICOLOGICAL INFORMATION

Ingestion: No data is available on the product itself

Ingestion – Components:

- Amine and Resin Copolymer N/A
- Benzyl alcohol LD50: 1,230 mg/kg Species: Rat

Inhalation: No data is available on the product itself

Inhalation – Components:

- Amine and Resin Copolymer N/A
- Benzyl alcohol LD50 (4 h): >4.178 mg/L Species: Rat

OCED Test Guideline 403

Dermal: No data is available on the product itself

Dermal – Components:

- Amine and Resin Copolymer N/A
- Benzyl alcohol LD50: 2,000 mg/kg Species: Rabbit

Sensitization:

May cause sensitization of susceptible persons by skin contact

IDENTIFICATION

PRODUCT NAME: ADHL-NOVOLAC / PART B

MANUFACTURER/SUPPLIER: Adhesiveslab
235 Rayette Rd, Unit #4
Concord, Ontario Canada L4K 2G1

24 HOUR EMERGENCY NUMBER: 1-800-340-7697

APPLICATION AND USE: Extreme Chemical Resistant Epoxy Coating – Part B

PRODUCT DESCRIPTION: Two-component 100% solids Epoxy Coating (Amine curative)

HAZARDS IDENTIFICATION

GHS CLASSIFICATION - Acute toxicity (oral): Category 4
- Skin corrosion/irritation: Category 4
- Skin sensitization: Category 1B
- Serious Eye Damage: Category 1
- Reproductive toxicity: Category 2



SIGNAL WORD WARNING

HAZARD STATEMENTS .. -H302+H312 Harmful if swallowed or in contact with skin
- H314 Causes severe skin burns and eye damage
- H317 May cause an allergic skin reaction
- H335: May cause respiratory irritation

PREVENTION - P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray
- P264 Wash hands thoroughly after handling
- P270 Do not eat, drink, or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area
- P272 Contaminated work clothing should not be allowed out of the workplace
- P280 Wear protective gloves/protective clothing/eye protective/face protection
- P284 Wear respiratory protection.

RESPONSE - P301+P330+P331: IF SWALLED: rinse mouth. DO NOT induce vomiting.
- P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P304+P340+P310: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTRE/doctor.
- P308+P313: IF exposed or concerned: Get medical advice/attention
- P333+P313: If skin irritation or rash occurs: Get medical advice/attention
- P363+P364: Take off contaminated clothing and wash before reuse

- STORAGE - P403 + P233 Store in a well ventilated place. Keep container tightly closed
- P501 Dispose of contents/container in accordance with local/regional/national/international regulation.
- DISPOSAL - Notify your local fire station and inform the location of the fire and characteristics hazard.
- IN CASE OF FIRE - Wear appropriate protective equipment
- FIRST AID - P301 + P312: IF Swallowed: Call a POISON CENTRE or doctor/physician if you feel unwell.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- WHMIS Classification (Canada):
Class D-2B
Class E, corrosive

COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	C.A.S. #	Concentration
Amine and Resin Copolymer	Not available	60-100
Methylenbis(cyclohexyl)amine, 4,4-	1761-71-3	0-10
Benzyl Alcohol	100-51-6	5-25
2,4,6 Trimethyl Aminomethyl Phenol	90-72-2	2-10

SAFETY DATA SHEET

FIRST-AID MEASURES

FIRST-AID MEASURES

- EYE CONTACT - In case of contact with eyes,
- Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
- SKIN CONTACT..... -Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.
- Go to the hospital immediately if symptoms (flare, irritate) occur.
Wash thoroughly after handling.
Wash immediately with plenty of soap and water. Remove and clean all contaminated clothing and launder before reuse.
- INHALATION -When exposed to large amounts of steam and mist, move to fresh air.
Take specific treatment if needed.
- INGESTION - In the case of overexposure, remove to fresh air. Get medical attention if the victim is in respiratory distress. About whether I should induce vomiting Take the advice of a doctor
Rinse your mouth with water immediately.
If swallowed, drink two glasses of water. Do not induce vomiting. The material is corrosive. Do not give anything to mouth to an unconscious person. Get prompt medical attention.
- ADDITIONAL INFORMATION -Notify medical personnel of contaminated situations and
MOST IMPORTANT SYMPTOMS/ EFFECTS, have them take appropriate protective measures.
ACUTE OR DELAYED -Not available.



FIRE-FIGHTING MEASURES

GENERAL FIRE HAZARDS	Combustible liquid; may release vapours that form combustible mixtures at or above the flash point. Toxic gases will form upon combustion.
SUITABLE EXTINGUISHING MEDIA	-Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
UNSUITABLE EXTINGUISHING MEDIA	- Avoid use of water jet for extinguishing
SPECIAL PROTECTION EQUIPMENT FOR FIRE FIGHTERS	-Notify your local firestation and inform the location of the fire and characteristics hazard. -Using a unattended and water devices in case of large fire and leave alone to burn if you do not imperative. -Avoid inhalation of materials or combustion by-products. -Do not access if the tank on fire. -Use appropriate extinguishing measure suitable for surrounding fire. -Keep containers cool with water spray. -Vapour or gas is burned at distant ignition sources can be spread quickly.
HAZARDOUS COMBUSTION PRODUCTS ...	-Carbon dioxide, and carbon monoxide, various hydrocarbons, phenol.

ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES	-Must work against the wind, let the upwind people to evacuate -Move container to safe area from the leak area. -Remove all sources of ignition. -Do not direct water at spill or source of leak -Avoid skin contact and inhalation.
ENVIRONMENTAL PRECAUTIONS	-Prevent runoff and contact with waterways, drains or sewers -If large amounts have been spilled, inform the relevant authorities.
CONTAINMENT AND CLEAN UP	-Large spill: stay upwind and keep out of low areas. Dike for later disposal. - Notification to central government, local government. When emissions at least of the standard amount - Dispose of waste in accordance with local regulation. - Appropriate container for disposal of spilled material collected. - Small leak: sand or other non-combustible material, please let use absorption. - Wipe off the solvent - Dike for later disposal. - Prevent the influx to waterways, sewers, basements or confined spaces.

HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Wash thoroughly after handling
- Avoid direct physical contact
- Avoid contact with incompatible materials.

CONDITIONS FOR SAFE STORAGE

- Do not use damaged containers
- Do not apply direct heat
- Save applicable laws and regulations.
- Avoid direct sunlight
- Keep in the original container.
- Collected them in sealed container.
- Do not eat, drink or smoke when using this product.
- Store away from water and sewer.

EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

DIPROPYLENE GLYCOL METHYL ETHER ... - Not available

APPROPRIATE ENGINEERING CONTROL

- A system of local and/or general exhaust is recommended to keep employee exposure above the Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. The use of local exhaust ventilation is recommended to control emissions near the source.

PERSONAL PROTECTIVE EQUIPMENT:

EYE / TYPE

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

RESPIRATORY PROTECTION

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum.

SKIN PROTECTION/ GLOVES/ CLOTHING ...

- Consider warning properties before use.

OTHER/TYPE

- For unknown Concentration or Immediately Dangerous to Life or Health: Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
- Wear appropriate clothing
- Not available

PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Specific Gravity: 0.97
Vapour Pressure: n/av
Solubility in Water: Slight
Boiling Point: n/av
Freezing/Melting Point: n/av
Viscosity: 100 cps 23°C (73°F)
Vapour Density: n/av
Evaporation Rate: n/av
Volatile: (voc): zero %
Odour: Characteristic amine odour

Appearance: Clear
Hazardous Air Pollutant: None
Flashpoint and Method: 75 °C (T.C.C.)
Auto ignition Temperature: 350°C
Flammable Limits: 1.1 - 7% by volume
pH: Alkaline (10-11)
Partition Coefficient (n-octanol/water): N/A
Odour Threshold: No Data Available
Upper flammability or upper explosive limit: N/A
Lower flammability or lower explosive limit: N/A

STABILITY AND REACTIVITY

REACTIVITY -This material is stable under recommended storage and handling conditions.

CHEMICAL STABILITY -This material is stable under recommended storage and handling conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:
CONDITIONS TO AVOID -Hazardous Polymerization will not occur.

..... -Avoid contact with incompatible materials and condition.

..... -Avoid: Accumulation of electrostatic charges, Heating, Flames and hot surfaces.

INCOMPATIBLE MATERIALS -Not available

HAZARDOUS DECOMPOSITION PRODUCTS.. -May emit flammable vapour if involved in fire.

TOXICOLOGICAL INFORMATION

Ingestion: No data is available on the product itself

Ingestion – Components:

- Amine and Resin Copolymer N/A
- Benzyl alcohol LD50: 1,230 mg/kg Species: Rat

Inhalation: No data is available on the product itself

Inhalation – Components:

- Amine and Resin Copolymer N/A
- Benzyl alcohol LD50 (4 h): >4.178 mg/L Species: Rat

OCED Test Guideline 403

Dermal: No data is available on the product itself

Dermal – Components:

- Amine and Resin Copolymer N/A
- Benzyl alcohol LD50: 2,000 mg/kg Species: Rabbit

Sensitization:

May cause sensitization of susceptible persons by skin contact

Skin Corrosion/Irritation:
Extremely corrosive and destructive to tissue

Serious eye damage/eye irritation:
May cause irreversible eye damage

Respiratory or skin sensitization:

N/A

Germ Cell Mutagenicity:

19

N/A

Carcinogenicity:

N/A

Reproductive toxicity:

N/A

ECOLOGICAL INFORMATION

- Aquatic toxicity: no data available
- Persistence and degradability: no data available

TRANSPORTATION INFORMATION

TDomestic/International Regulation

TDG

UN number : UN 2735

Proper shipping name: Amines, Liquid, Corrosive, N.O.S. (Amino Terminated Polyether)

Class: 8

Packing group: II

Lables: 8

IMDG

UN/ID No.: UN2735

Proper Shipping name: Amines, Liquid, Corrosive, N.O.S. (Amino Terminated Polyether)

Class or Division: 8

Packing group: II

Label(s): 8

Marine Pollutant: Yes

IATA

UN/ID No.: UN2735

Proper shipping: Amines, Liquid, Corrosive, N.O.S. (Amino Terminated Polyether)

Class: 8

Packing group: II

Labels: Corrosive

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

