Part A

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	ResHydroPrime #3002, **Part A**
PRODUCT CLASS:	Epoxy Resin
PRODUCT TYPE	Diglycidyl Ether of Bisphenol-A
D.O.T. CATEGORY	UN3082
MANUFACTURER	**RESIN8, INC.** 398 W. Wrightwood Ave Elmhurst, IL 60126 info@resin-8.com
TELEPHONE	(773) 551-3633
EMERGENCY	(773) 551-3633

2. HAZARD(S) IDENTIFICATION

Hazard Risk Classification	Acute Toxicity - Oral : Category 4 Skin Corrosion/Irritation: Category 2 Serious Eye Damage/Irritation: Category 2A Skin Sensitization: Category I Chronic hazards to the aquatic environment: Category 2
Label elements including precautionary statements	
Hazard Risk Statement	H302 Harmful if swallowed H315 Causes skin irritation H319 Causes serious eye irritation H317 May cause allergic skin reaction H411 Toxic to aquatic life with long lasting effects
Signal Word	Warning
Precautionary Statement	
Prevention	P261 Avoid breathing dust/fume/gas/mi st/vapors/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	P3O1+P312 IF SWALLOWED: CALL A POISON CENTER or doctor/physician if you feel sick P330 Rinse mouth P302+P352 IF ON SKIN: Wash with plenry of soap and water.

P321 Specific treatment (see ... on this label)
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash before reuse
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse
P391 Collect spillage

Storage	No Data
Disposal	P501 Dispose of contents/container

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredients	>70% DIGLYCIDYL ETHER OF BISPHENOL. A CAS number 2s068-38-6 The remaining ingredients are trade secret.

4. FIRST AID MEASURES

Eye contact	Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Consult a physician if signs of irritation appear
Skin contact	Immediately remove contaminated clothing or shoes, wash skin with plenty of water for at least 15 minutes. Use soap if readily available, or follow by thoroughly washing soap and water. Do not reuse clothing until thoroughly decontaminated
Inhalation	Move person to fresh air area and provide oxygen if breathing is difficult. Consult a physician if effects occur.
Ingestion	Do not induce vomiting because of risk of aspiration. Rinse mouth with water. Consult a physician if effects occur.

Acute and delayed symptoms/effects

Inhalation	Short-term exposure	Irritation, allergic reaction, blood congestion of the lungs
	Long-term exposure	Irritation, allergic reaction
Ingestion		No data for side effect
Skin contact	Short-term exposure	Irritation, allergic reaction
	Prolonged exposure	Irritation, allergic reaction
Eye contact	Short-term exposure	Irritation
	Prolonged exposure	Irritation

Indication of immediate medical attention and notes for physician	Get adequate measure with the symptoms.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	Dry chemical, carbon dioxide, water, foam in use.
Unsuitable extinguishing media	No data
Conflagration	Use foaming agent in use or water spray.

Specific hazards arising from the chemical

Combustion product	In case of fire, toxic fumes might be formed
Fire-fighting hazard	May cause fire.

Special protective equipment and precautions for fire-fighters	Isolate from heat, electrical equipment, sparks and open flame. Wear self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use protective equipment as required. Avoid skin contact or inhalation

Environmental precautions procedures

Air	No data
Soil	No data
Underwater	Store away from water supply and drainage.

Methods and cleaning up *No entry to unauthorized Person.

Little Leakage	All disposal methods must be in compliance with applicable local regulations. Sweep spilled material into non-leaking containers. Absorpt with sand or non-flammable material.
Enormous leakage	No data

7. HANDLING AND STORAGE

Precautions for safe handling	Keep in a cool, well-ventilated place and container closed.
Conditions for safe storage	Avoid contact with skin and eyes. Use with adequate ventilation. Keep away from heat, flame, sparks and high temperature.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Control Parameters

Domestic regulation	No data
ACGIH (TLV)	No data
OSHA (PEL)	No data
NIOSH(REL)	No data
NIOSH (IDLH)	No data
ACGIH (BED	No data

Appropriate engineering controls	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentration low.

Personal protective equipment

Respiratory protection	Never exceed the national Occupational Exposure Limit. Use local exhaust ventilation or handle in a ventilated enclosure. For greater protection, a facepiece chemical cartridge respirator is recommended.
Eye protection	Safety glasses with side shields
Hands protection	Chemical resistant gloves
Body protection	Chemical resistant protective suit. Chemicals resistant boots. Don't need protective clothes at normal state

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid Clear
Odor	Odorless
Odor threshold	No Data
pH	6-8
Melting point / freezing point	-16C (at 1,013 h Pa)
Initial boiling point and boiling range	> 204.4C
Flashing point	266C (at 1,013 h Pa)
Evaporation rate	No Data
Flammability (solid, gas)	No data

Upper/lower flammability or explosive limits	No Data
Vapor pressure	4.6 x 10-8 Pa(at 25C)
Solubility	6.9mg /L (at 20C) - Insoluble
Vapor density	No data
Relative density	1.17 (Water= 1.0)
Partition coefficient	Log P: 3.242+/- 0.324 (at 25C and pH 7.1)
n-octanol / water	log Kow: 2.821
Auto-ignition temperature	No data
Decomposition temperature	No data
Viscosity	11,500 - 13,500cps (25C)
Formula mass (Mw)	368 - 400

10. STABILITY AND REACTIVITY

Chemical stability	Stable at normal temperature and pressure
Possibility of hazardous reactions	No data
Conditions to avoid	Excessive heating.

Avoid to contact with strong oxidizing agent, heat, spark and flame.
Incompatible materials: Acids, amines, bases, oxidizing agents.
Hazardous decomposition products: May produce hazardous carbon oxides, chloro hydrogen.

11. TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure:

by respiratory organ	May cause respiratory organ irritation.
by mouth	No data
by skin and contact	May cause skin irritation.
by eye contact	May cause eye irritation.

Delayed and immediate effects as well as chronic effects from short- and long-term exposure

Acute toxic

Oral	LD50 > 2,000mg/kg Rat (Wistar), OECD Guideline 420) LD50 1,000 - 5,000mg/Kg Rat LD50 500 - 2,000mg/Kg Mouse
Dermal	LD50 > 2,000mg /kg bw (male/female rat (Wistar), OECD Guideline 402)

LD50 > 1,200 - 20,000mg /kg Rat
LD50 > 20,000mg /kg Rabbit
LD50 1,270mg /kg Mouse

Inhalation	No data
Skin corrosion / irritation	Moderate skin irritation
Serious eye damage / eye irritation	Slightly to moderate eye irritation
Respiratory sensitization	No data
Skin sensitization	May cause sensitization in contact with skin.
Carcinogenicity	Chronic toxicity / carcinogenicity studies (Oral. Rats. 2 years) NOAEL: 15 mg / kg / day (male) - Decreased body weight, an enlarged cecum NOAEL 100 mg / kg /day (female) Chronic toxicity /carcinogenicity studies (Dermal) The systemic NOEL : 1 mg /kg/day (female rats) - Histopathologic changes (100 mg/kg/day) The systemic NOEL : 100mg/kg/day (male mice) The application site NOEL : 0.1mg/kg/day (male mice -Epidermal hyperplasia, chronic dermal inflammation, epidermal crusts (100mg/kg/application)
IARC	No data
NTP	No data
OSHA	No data
WISHA	No data
ACGIH	No data
Germ Cell Mutagenicity	Not classified

in vitro - Positive *in vivo* - Negative

Histidine reverse gene mutation, Ames assay			
Type	Salmonella typhimurium (TA98, TA100, TA1535, TA1537, TA1538)		
Test Code	SAL+	Result	Positive
IN VITRO CHROMOSOMAL ABERRATIONS			
Type	CHL cells	Metabolic Activation	Without
Dose	0.01-0.04mg/ml (Solvent; DMSO)	Dose Regime	24hr continuous
Result	Positive (Structure change)		

Reproductive toxicity	Effect on fertility (Rat, two generations) No indications of any adverse effects on reproduction Noel: 50 mg /kg/day (adult males) 540 mg /kg /day (adult female) Noel for reproductive effects: 750mg /kg /day No evidence of developmental toxicity at doses level resulting in material toxicity in rats and rabbits following oral administration or rabbits following dermal administration.
Specific target organ toxicity (single exposure)	No data
Specific target organ toxicity (repeated exposure)	**Oral gavage studv** Slight body weight effects (zs}mg /kg /day and higher) Enlarged cecum (necropsy, male rats, 2s}mg /kg /day) Slight histopathologic changes (the adrenal gland" cecum and kidney, rats, 250 mg /kg{day) A3% decrease in body weight (female rats, 50 mg /kg/day) **Dermal study** The systemic toxicity NOAEL : 100 mg/kg/day - slight decrease in body weights (1000 mg/kg/day) Dermal effects NOEL: 10 mg /kg /day (female rats)
Aspiration hazard	No data
Numerical measures of toxicity	Intraperitoneal (i.p.) LD50 1,400 - 2,400 mg/kg Rat LD50 1,780 - 4,000 mg/kg Mouse

12. ECOLOGICAL INFORMATION

Aquatic and terrestrial ecotoxicity

Fish	96hr-LC50 : 3.6mg /L test mat. Oncorhynchus mykis (direct application, nominal) (OECD Guideline 203) LC50 1.4 mg/L 96hr Oryzias latipes
Crustacean	48hr-EC50: 2.8mgll- test mat. Daphnia magna (Direct addition, nominal, based on : mobility) (OECD Guideline 202) EC5O 1.7mg /L 48hr
Aquatic Plant	72hr-EC50 > 11 mg/L Scenedesmus capricornutum water soluble fraction (meas. (arithm. mean)) based on: growth rate (EPA-66013-75-009)

Persistence and degradability persistence

Persistence	No data
Resolvability	No data

Bioaccumulative potential

Concentration	Kow:3.24 log Kow 2.281 (Estimated) BCF 31 L/kg ww BCF 0.56 - 0.67
Bio resolvability	0(%) 28 day; Non-degradable

Mobility in soil	Log Koc=2.65 +/-0.7 QSAR prediction using the Kow method in KOCWIN v. 2.0 and Kow=3.24 as input.
Other adverse effects	Invertebrates: 21d-NOEC=0.3 mg /L test mat. Daphnia magna (nominal) based on: survival, growth and reproduction (OECD Guideline 211) Algae : 72hr-NOEC :4.2mg/L Scenedesmus capricornutum water soluble fraction (meas. (arithm. mean)) based on: growth rate (EPA-66013-75-009)

13. DISPOSAL CONSIDERATIONS

Disposal method: Comply with all Federal, State and Local Regulations

14. TRANSPORT INFORMATION

INFORMATION dot

UN/ID No.	UN3082
Shipping name	Environmentally hazardous substance, liquid, n.o.s. (Diglycidyl Ether of Bisphenol A)
Class or Division	9
Packing group	III
Label (s)	8
Marine Pollutant	P

Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises

Emergency procedure at fire F - A Emergency procedure at leakages S - F

15. REGULATORY INFORMATION

This product is listed on the TSCA inventory of chemical substances in USA.
This product is DSL for the Chemical Substance inventory in Canada.

16. OTHER INFORMATION

Health = 2, Fire = 1, Reactivity = 0

Part B

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	ResHydroPrime #3002, **Part B**
PRODUCT CLASS:	Curing Agent
PRODUCT TYPE	Curing Agent
D.O.T. CATEGORY	UN2735
MANUFACTURER	**RESIN8, INC.**

398 W. Wrightwood Ave
Elmhurst, IL 60126
info@resin-8.com

TELEPHONE (773) 551-3633

EMERGENCY (773) 551-3633

2. HAZARD(S) IDENTIFICATION

GHS Classification

Skin Irritation- Category 2
Serious Eye Damage - Category 1
Skin sensitization - Category 1
Specific target organ toxicity - repeated exposure - Category 2

GHS label elements

Hazard pictograms / symbols

Hazard Risk Statements

H315: Causes skin irritation
H318: May cause serious eye damage
H412: Harmful to aquatic life with long lasting effects.

Signal Word

Danger

Precautionary Statement

Prevention

P280a : Wear protective gloves and eye/face protection.
P280e : Wear protective gloves

Response

P305+P351+P338 : IF IN EYES - Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 : Immediately call a POISON CENTRE or doctor/physician.
P332+P313 : If skin irritation or rash occurs - Get medical advice/attention.

Hazards not otherwise classified

Severe eye irritant
Moderate Skin irritant.
Moderate Respiratory irritant
Risk of serious damage to eyes

3. COMPOSITION-INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration
Polymer w/ bis-A, bis-A. Dilly idyl ether, diethylenetriamine, formaldehyde, glycidyl Ph ether, pentaethylenehexamine	68915-81-1.	<25%
Acetic Acid	64-19-7	<0.5%

Triazaundecamethylene	112-57-2	<0.5%
Propylene glycol monomethyl ether	107-98-2	<3 %
2-Methoxy-1 Propanol	1589-47-5	<0.01%
Isopropyl Alcohol	67-63-0	<3%

4. FIRST AID MEASURES

General advice	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
Eye contact	Rinse immediately with plenty of water also under eyelids for at least 20 minutes. Remove contact lenses.
Skin contact	Immediately remove contaminated clothing, and any extraneous chemical. Wash immediately with copious amounts of water, for 20 minutes. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
Ingestion	Do not induce vomiting without medical advice. If a person vomits when lying on his back place him in the recovery position. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Tum victim's head to the side.
Inhalation	If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.
Most important symptoms/effects - acute and delayed	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: sore throat.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical. Dry sand. Limestone powder
Specific hazards	Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated.
Special protective equipment for fire-fighters	Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting, if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Wear suitable protective clothing, gloves and eye/face protection. Use self- contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.
Environmental precautions	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.

Methods for cleaning up	Approach suspected leak areas with caution. Place in appropriate chemical waste container.
Additional advice	Open enclosed spaces to outside atmosphere.. If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling	Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Avoid contact with skin and eyes. Avoid contact with eyes. Emergency showers and eyewash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.
Storage	Keep container tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering measures	Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.
Personal protective equipment	
Respiratory protection	Wear appropriate respirator when ventilation is inadequate
Hand protection	Butyl-rubber Impervious gloves. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products, if a risk assessment indicates this is necessary.
Eye protection	Chemical resistant goggles must be worn.
Skin and body protection	Long sleeve shirts and trousers without cuffs.
Environmental exposure controls	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.
Special instructions for protection and hygiene	Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

Exposure limit (s)	Acetic Acid	Time weighted Average (TWA): EU ELV	10 ppm	25 mg/m3
	2,2-Iminodi(ethylamine)	Time weighted Average (TWA): EH40 WEL	1 ppm	4.3 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid. Yellow
Odor	Ammoniacal
Odor threshold	No data available

pH	Alkaline.
Melting point/range	No data available
Boiling point/range	212 °F (100 C)
Flash point	>233°F (112 C)
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable
Upper/lower	Not applicable
Vapor pressure	< 10.34 mm Hg at 70F (21 C)
Water solubility	No data available
Relative vapor density	Not applicable
Relative density	1.05 (water=1.0)
Partition coefficient (n octanol/water)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Molecular Weight	No data available
Density	65.55 lb/ft3 (1.05 g/cm3) at 70F (21C)

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to avoid	No data available.
Materials to avoid	Mineral acids. Incompatible with bases. Oxidizing agents.
Hazardous decomposition	Carbon monoxide. Carbon dioxide (CO2)

Possibility of hazardous Reactions/Reactivity - No data available.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure

Effects on Eye	Serious eye irritation.
Effects on Skin	Causes skin irritation.
Inhalation Effects	May cause nose, throat, and lung irritation. Inhalation of aerosol may cause irritation to the upper respiratory tract.
Ingestion Effects	No data available.
Symptoms	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: sore throat.

Acute Toxicity

Acute Oral Toxicity	LD50: > 2,500 mg/kg	Species : Rat.
inhalation	No data is available on the product itself.	
Inhalation - Components		
Acetic acid	LC50 (1 h): 39 mg/l	Species : Rat
Diethylenetriamine	LC50 (4 h): >0.07-<0.3 mg/l	Species : Rat
Acute Dermal Toxicity	LD50 : >5,000 mg/kg	Species : Rabbit. (Method Estimated)
Skin corrosion/irritation	Moderate skin irritation.	
Serious eye damage/eye irritation	No data available	
Sensitization	May cause sensitization of susceptible persons by skin contact	
Carcinogenicity	No data available	
Reproductive toxicity	No data is available on the product itself.	
Germ cell mutagenicity	No data is available on the product itself.	
Specific target organ systemic toxicity (single exposure)	Eyes. Skin. Respiratory system. Adverse eye effects, eye disease, skin disorders and allergies.	
Specific target organ systemic toxicity (repeated exposure)	No data is available	
Aspiration hazard	No data available	

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity	No data is available on the product itself.
Toxicity to fish - Components	
Acetic acid	LC50 (96 h) : 75 mg/l - Species : Bluegill, Sunfish (Lepomis macrochirus)
Acetic acid	LC50 (96 h) : 79 mg/l Species : Fathead minnow (Pimephales promelas)
Acetic acid	LC50 : 251 mg/l - Species : Fish
Toxicity to daphnia - Components	
Acetic acid	EC50 (48 h) : 65 mg/l - Species : Daphnia
Toxicity to other organisms	No data is available on the product itself.
Persistence and degradability Biodegradability	No data is available on the product itself.
Mobility in Soil	No data available
Global Warming Potential	No data available
Bioaccumulation - Components	
Acetic acid	Negligible bioaccumulation potential

13. DISPOSAL INFORMATION

Waste treatment methods	The product should not be allowed to enter drains, water courses or the soil. Dispose of this material and it container in a safe way. Contact supplier if guidance is required.
Contaminated packaging	Dispose of container and unused contents in accordance with federal, state, and local requirements.

14. TRANSPORT INFORMATION

ADR	Not dangerous goods
IATA	Not dangerous goods
IMDG	Not dangerous goods

RID	Not dangerous goods

I5. REGULATORY INFORMATION

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

COUNTRY	REGULATORY LIST	NOTIFICATION
USA	TSCA	included on inventory
EU	EINECS	included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	included on inventory	included on inventory
Australia	AICS	included on inventory
Japan	ENCS	included on inventory
South Korea	ECL	included on inventory
China	SEPA	included on inventory
Philippines	PICCS	included on inventory

16. OTHER INFORMATION

Ensure all national/local regulations are observed

Hazard Statements:

H226	Flammable liquid and vapor
H302	Harmful if swallowed
H312	Harmful in skin contact
H314	Causes severe skin burn and eye damage
H315	Causes skin irritation
H317	May cause allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.