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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 RESINS. INC.

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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 P301+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.



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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 Get adequate measure with the symptoms.

notes for physician



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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.



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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



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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)



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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

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



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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 study

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)

EC50 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



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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.



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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
Linseed oil, 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%



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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.

waterways. Construct a dike to prevent spreading.



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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



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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 Carbon monoxide. decomposition Carbon dioxide (CO2)

Possibility of hazardous Reactions/Reactivity - No data available.



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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 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



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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



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RID Not dangerous goods

15. 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.