

Solutia Inc.

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: RESIMENE® 717 Amino crosslinker resin

Reference Number: 000000000673 Date: 09/19/2002

Company Information:

United States:

Solutia Inc.
575 Maryville Center Drive, P.O. Box 66760
St. Louis, MO 63166-6760
Emergency telephone: Chemtrec: 1-800-424-9300
Non-Emergency telephone: 1-314-674-6661

Canada:

Solutia Canada Inc.
6800 St. Patrick Street
LaSalle, PQ H8N 2H3
Emergency telephone: CANUTEC: 1-613-996-6666
Non-Emergency telephone: 1-314-674-6661

Mexico:

Solutia MEXICO, S. DE R.L. DE C.V.
Blvd. Manuel Avila Camacho No. 40 Piso 12 Colonia Lomas
de Chapultepec
Edificio Torre Esmeralda 11000 Mexico, D.F.
Emergency telephone: SETIQ: (in Mexico) 01-800-002-1400
Non-Emergency telephone: (in Mexico) 555-202-5600

Brazil:

Solutia Brazil Ltd.
Avenue Jorge Bei Maluf, 2105
CEP 08686-000 Suzano, SP
Emergency telephone: 0800 193-190
Non-Emergency telephone: 5511 4745-8569

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS No.</u>	<u>Average concentration</u>	<u>Concentration range</u>	<u>Units</u>
methylated melamine, formaldehyde polymer	68002-20-0		>=82.0 - <=86.0	%
butan-1-ol	71-36-3		>=14.0 - <=18.0	%
formaldehyde	50-00-0	0.7	<1.5	%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Form: semi-viscous liquid
Colour: clear to colourless
Odour: formaldehyde and solvent

WARNING STATEMENTS

If inhaled: Remove patient to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult give oxygen.
Remove material from eyes, skin and clothing.

If swallowed: Immediate first aid is not likely to be required.
A physician or Poison Control Center can be contacted for advice.
Wash heavily contaminated clothing before reuse.

5. FIRE FIGHTING MEASURES

Flash point: 33 C Pensky-Martens closed tester

Hazardous products of combustion: formaldehyde; methanol; nitrogen oxides (NO_x); carbon monoxide (CO); carbon dioxide; soot; smoke

Extinguishing media: Water spray, foam, dry chemical, or carbon dioxide

Unusual fire and explosion hazards: There is a possibility of pressure build-up in containers when heated.
Keep containers cool by spraying with water if exposed to fire.

Fire fighting equipment: Firefighters, and others exposed, wear self-contained breathing apparatus.
Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Remove any sources of sparks, flame, or hot surfaces.
Use personal protection recommended in section 8.

Environmental precautions: Keep out of drains and water courses.

Methods for cleaning up: Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

7. HANDLING AND STORAGE

Handling

Keep away from heat, sparks, and flame.
Avoid contact with eyes, skin and clothing.
Avoid breathing vapour or mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

Container hazardous when empty. Emptied containers retain vapour and product residue. Follow labelled warnings even after container is emptied. Residual vapours may explode on ignition. Do not cut, drill, grind or weld on or near this container. Improper disposal or reuse of this container may be dangerous and/or illegal. The reuse of this

material's container for non industrial purposes is prohibited and any reuse must be in consideration of the data provided in this material safety data sheet.

Storage

Temperature: 4 - 32 C

General: Do not expose to extreme temperatures.
Store in a cool, well ventilated place away from foodstuffs, reducing agents and acids.
Stable under normal conditions of handling and storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection: Wear chemical goggles.
Have eye flushing equipment available.

Hand protection: Wear chemical resistant gloves.
Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application.

Body protection: Wear suitable protective clothing.
Wear full protective clothing if exposed to splashes.
Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application.
Wash contaminated skin promptly.
Launder contaminated clothing and clean protective equipment before reuse.
Have safety shower available at locations where skin contact can occur.
Wash thoroughly after handling.
Attention! Repeated or prolonged contact may cause allergic skin reaction in some people.

Respiratory protection: Avoid breathing vapour or mist.
Use approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded.
If used, full facepiece replaces the need for face shield and/or chemical goggles.
Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.
Observe respirator use limitations specified by the manufacturer.

Ventilation: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits.
If practical, use local mechanical exhaust ventilation at sources of air contamination such as processing equipment.

Airborne exposure limits: (ml/m³ = ppm)

RESIMENE® 717 No specific occupational exposure limit has been established.

butan-1-ol ACGIH TLV: 20 ml/m³ ; ; 8-hr TWA
OSHA PEL: 100 ml/m³ ; 300 mg/m³ ; ; 8-hr TWA
Mexican OEL: 50 ml/m³ ; 150 mg/m³ ; skin * ; 8-hr TWA
* skin absorption of this material may add to the overall exposure.

formaldehyde ACGIH TLV: 0.3 ml/m³ ; 0.37 mg/m³ ; ; ceiling
A2: The ACGIH has designated this component as an "A2" substance, thereby including it among industrial substances suspect of carcinogenic potential for man.

Worker exposure by all routes should be carefully controlled.
OSHA PEL: 0.75 ml/m³ ; ; 8-hr TWA
OSHA PEL: 2 ml/m³ ; ; 15-min STEL
Mexican OEL: 2 ml/m³ ; 3 mg/m³ ; ; ceiling

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity: 1.14 - 1.16 @ 25 C

Water solubility: slightly soluble

Solubility in other solvents: soluble in most alcohols, aromatic hydrocarbons and ketones; limited solubility in paraffins

Viscosity : 2,000 - 6,000 mPa.s @ 25 C

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Conditions to avoid: Do not expose to extreme temperatures.
All sources of ignition.

Materials to avoid - None known
Hazardous reactions: Hazardous polymerization does not occur.

Hazardous decomposition products: formaldehyde; methanol; butanol; nitrogenous products; carbon monoxide (CO)

11. TOXICOLOGICAL INFORMATION

Results from Solutia sponsored studies or from the available public literature are described below.

Acute animal toxicity data

Oral: LD50 , rat , > 5,000 mg/kg , Practically nontoxic following oral administration.

Dermal: LD50 , rabbit , > 5,000 mg/kg , Practically nontoxic after skin application in animal studies.

Eye irritation: rabbit , Severely irritating, 24 h

Skin irritation: rabbit , Corrosive to skin., 24 h
rabbit , Slightly irritating to skin., 4 h

Mutagenicity: No genetic effects were observed in standard tests using bacterial cells and whole animals.
Genetic effects were observed in standard tests with animal cells.

Components

Data from Solutia studies and/or the available scientific literature on the components of this material which have been identified as hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Hazardous Products Act are discussed below.

butan-1-ol	<p>Irritating to eyes, skin and respiratory tract. The vapour has a narcotic effect. Excessive exposure may cause dizziness, vertigo, confusion, lack of coordination, dyspnoea, nausea and loss of consciousness. Accidental inhalation during ingestion or vomiting may cause lung injury leading to death. May cause hearing loss. Slightly toxic after skin application in animal studies. Slightly to moderately toxic following oral administration. Repeat inhalation studies reported multiple systemic effects. No effects on offspring observed in laboratory animals in the presence of maternal toxicity.</p>
formaldehyde	<p>Corrosive to eyes. Can produce severe eye damage leading to loss of sight. Highly irritating to skin. Repeated contact can produce numbness. Repeated skin application produces skin allergy. Causes burning of the nose and throat. Causes digestive tract injury if swallowed. Inhalation may result in nausea, vomiting and diarrhea. Can trigger asthma attacks in susceptible individuals. Slightly to moderately toxic following oral administration. Moderately toxic after skin application in animal studies. Repeated inhalation exposure produced multiple systemic effects. This material produced tumours in laboratory animals. The weight of the evidence indicates that this material is mutagenic. Listed by the National Toxicology Program (NTP) as a substance that may reasonably be anticipated to be a carcinogen and is classified as "probably carcinogenic to humans" by the International Agency for Research on Cancer (IARC).</p>

12. ECOLOGICAL INFORMATION

Solutia has not conducted environmental toxicity or biodegradation studies with this material.

13. DISPOSAL CONSIDERATIONS

US EPA RCRA Status: This material when discarded is a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. See disposal considerations below for U.S. EPA disposal requirements. Consult regulatory officials for performance standards.

US EPA RCRA hazardous waste number: D001 Compound/Characteristic: Ignitability

Disposal considerations: Deactivation

Recovery
CMBST - High temperature organic destruction technologies
Consult 40 CFR 268.48 for concentration based standards.

Miscellaneous advice: Local, state, provincial, and national disposal regulations may be more or less stringent. Consult your attorney or appropriate regulatory officials for information on such disposal.
This product should not be dumped, spilled, rinsed or washed into sewers or public waterways.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

US DOT

Proper shipping name: RESIN SOLUTION

Hazard Class: 3
Hazard Identification number: UN1866
Packing Group: Packing Group III
Transport label: Flammable liquid.

Canadian TDG

Proper shipping name: RESIN SOLUTION

Hazard Class: 3
Hazard Identification number: UN1866
Packing Group: Packing Group III
Transport label: Flammable liquid.

Reportable Quantity/Limit

US DOT RQ 100 lb *formaldehyde*
Package size containing reportable amount: 6,667 lb
US DOT RQ 5,000 lb *butan-1-ol*
Package size containing reportable amount: 27,778 lb

15. REGULATORY INFORMATION

All components are in compliance with the following inventories: U.S. TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Phillipine PICCS, Chinese

Other chemical inventory information: The polymer contained within this product is exempt from listing in the European Inventory. The monomers used to manufacture this polymer are listed as required, as are all other components of this product.

Canadian WHMIS classification: B2 - Flammable Liquids
D2(A) - Materials Causing Other Toxic Effects
D2(B) - Materials Causing Other Toxic Effects

SARA Hazard Notification:

Hazard Categories Under Title III Immediate

Rules (40 CFR 370): Delayed Fire
Section 302 Extremely Hazardous Substances: formaldehyde
Section 313 Toxic Chemical(s): butan-1-ol formaldehyde

CERCLA Reportable Quantity:

100 lbs formaldehyde
5,000 lbs butan-1-ol

For this/these chemicals, release of more than the Reportable Quantity to the environment in a 24 hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675).

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contains all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification.

Safety data sheet also created in accordance with Brazilian law NBR 14725

16. OTHER INFORMATION

Product use: Coating agent

Reason for revision: Significant changes to the following section(s);, Section 2

	Health	Fire	Reactivity	Additional Information
Suggested NFPA Rating	2	2	1	
Suggested HMIS Rating:	2	2	1	G

Prepared by the Solutia Hazard Communication Group. Please consult Solutia @ 314-674-6661 if further information is needed.

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