

# Solutia Inc.

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Resimene® BM-5901 Amino crosslinker resin

Reference Number: 000000000721 Date: 04/11/2002

#### 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) 525-202-5600

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS No.</u>	<u>Average concentration</u>	<u>Concentration range</u>	<u>Units</u>
butylated melamine formaldehyde resin	68002-25-5		>=78.0 - <=82.0	%
butan-1-ol	71-36-3		>=16.8 - <=20.8	%
formaldehyde	50-00-0	0.9	<1.2	%

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Form: semi-viscous liquid  
Colour: clear to colourless  
Odour: sweet odour

#### WARNING STATEMENTS

**WARNING!**

Flammable liquid and vapour  
Causes eye irritation  
Causes skin irritation  
Causes respiratory tract irritation  
May cause allergic skin reaction.  
Contains Formaldehyde - Potential Cancer Hazard

**POTENTIAL HEALTH EFFECTS**

Likely routes of exposure: eye and skin contact  
inhalation

Eye contact: Highly irritating to eyes.

Skin contact: Highly irritating to skin.  
No more than slightly toxic if absorbed.  
May cause allergic skin reaction.

Inhalation: Severely irritating if inhaled.  
Significant adverse health effects are not expected to develop under normal conditions of exposure.

Ingestion: No more than slightly toxic if swallowed.  
Significant adverse health effects are not expected to develop if only small amounts (less than a mouthful) are swallowed.

Signs and symptoms of overexposure: headache  
dizziness/incoordination  
nausea/vomiting  
loss of consciousness  
vertigo  
confusion  
anxiety  
laboured breathing  
drowsiness

Carcinogenicity: Contains a component that is a National Toxicology Program (NTP) and International Agency for Research Cancer (IARC) listed carcinogen.

Refer to Section 11 for toxicological information.

**4. FIRST AID MEASURES**

If in eyes: Immediately flush with plenty of water for at least 15 minutes.  
If easy to do, remove any contact lenses.  
Get medical attention.  
Remove material from skin and clothing.

If on skin: Immediately flush the area with plenty of water.  
Remove contaminated clothing.  
Wash skin gently with soap as soon as it is available.  
Get medical attention.  
Wash clothing before reuse.

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 (NOx); 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/m<sup>3</sup> = ppm)

Resimene® BM-5901 No specific occupational exposure limit has been established.

butan-1-ol ACGIH TLV50 ml/m<sup>3</sup> ; 152 mg/m<sup>3</sup> ; skin \* ; 15-min STEL  
OSHA PEL100 ml/m<sup>3</sup> ; 300 mg/m<sup>3</sup> ; ; 8-hr TWA  
Mexican OEL50 ml/m<sup>3</sup> ; 150 mg/m<sup>3</sup> ; skin \* ; 8-hr TWA  
\* skin absorption of this material may add to the overall exposure.

formaldehyde ACGIH TLV0.3 ml/m<sup>3</sup> ; 0.37 mg/m<sup>3</sup> ; ; 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 PEL0.75 ml/m<sup>3</sup> ; ; 8-hr TWA

OSHA PEL2 ml/m<sup>3</sup> ; ; 15-min STEL  
Mexican OEL2 ml/m<sup>3</sup> ; 3 mg/m<sup>3</sup> ; ; 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:	1.03 - 1.07 @ 25 C
Water solubility:	negligible
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 - Hazardous reactions:	None known Hazardous polymerization does not occur.
Hazardous decomposition products :	formaldehyde; methanol; butanol; carbon monoxide (CO); nitrogenous products

## 11. TOXICOLOGICAL INFORMATION

Solutia has not conducted toxicity studies on this material and no toxicological information was obtained in a reasonably extensive search of the available scientific literature. Results of single exposure (acute) toxicity studies conducted on similar materials indicate that these products are practically nontoxic orally (rats) and after skin application (rabbits). Due to the variety of solvents used in these materials, these products have shown irritation which varied from practically non irritating to corrosive in rabbit skin and eyes.

### 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	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.
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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.

formaldehyde

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).

## 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: Recovery  
Deactivation  
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: 8,333 lb  
US DOT RQ 5,000 lb *butan-1-ol*  
Package size containing reportable amount: 24,038 lb  
CANADIAN RL 50 kg *formaldehyde*  
Package size containing reportable amount: 4,166 kg

## 15. REGULATORY INFORMATION

All components are on the following inventories: U.S. TSCA, Canadian DSL, EU EINECS, Australian AICS, 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 Rules (40 CFR 370): Immediate  
Delayed  
Fire

Section 302 Extremely Hazardous Substances : formaldehyde

Section 313 Toxic Chemical(s): butan-1-ol formaldehyde

CERCLA Reportable Quantity:

100 lbs formaldehyde

5000 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.

## 16. OTHER INFORMATION

Product use: Coating agent

Reason for revision: Error correction., Section 13

	Health	Fire	Reactivity	Additional Information
Suggested NFPA Rating	2	3	0	
Suggested HMIS Rating:	2	3	0	H

Prepared by the Solutia Hazard Communication Group. Please consult Solutia if further information is needed.

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