



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** Pressurized RX-Acid Scavenger (4301-05)  
**CAS #** Mixture  
**Product use** Acid neutralizer  
**Manufacturer** Nu-Calgon  
2008 Altom Court  
St. Louis, MO 63146 US  
Phone: 314-469-7000 / 800-554-5499  
Emergency Phone: 1-800-424-9300 (CHEMTREC)

## 2. Hazards Identification

**Emergency overview** DANGER  
Extremely Flammable Aerosol. Contents under pressure. Containers may explode when heated.  
MAY CAUSE ALLERGIC RESPIRATORY REACTION.  
CAUSES SKIN IRRITATION. CAUSES EYE IRRITATION.  
CAUSES RESPIRATORY TRACT IRRITATION.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** Causes irritation.

**Skin** Causes irritation.

**Inhalation** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**Ingestion** Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

**Target organs** Blood. Eyes. Liver. Respiratory system. Skin.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**OSHA Regulatory Status** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Potential environmental effects** Components of this product have been identified as having potential environmental concerns.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Propane	74-98-6	7 - 13
Butane	106-97-8	5 - 10
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)-	2162-74-5	10 - 30
Ethanol	64-17-5	1 - 5
Benzene, 2-isocyanato-1,3-bis(1-methylethyl)-	28178-42-9	0.1 - 1

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

**Skin contact** Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.

**Inhalation** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.

**Ingestion**

Not a normal route of exposure.

Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

**Notes to physician**

Symptoms may be delayed.

**General advice**

Do not puncture or incinerate container. Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

## 5. Fire Fighting Measures

**Flammable properties**

Flammable by WHMIS/OSHA criteria. Containers may explode when heated. Flammable aerosol by flame projection test.

**Extinguishing media****Suitable extinguishing media**

Carbon dioxide. Dry chemical. Alcohol foam.

**Unsuitable extinguishing media**

Not available

**Protection of firefighters****Specific hazards arising from the chemical**

Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out.

**Protective equipment for firefighters**

Firefighters should wear full protective clothing including self contained breathing apparatus.

**Hazardous combustion products**

May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

**Explosion data****Sensitivity to mechanical impact**

Not available

**Sensitivity to static discharge**

Not available

## 6. Accidental Release Measures

**Personal precautions**

Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

**Methods for containment**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

**Methods for cleaning up**

Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

## 7. Handling and Storage

**Handling**

Use good industrial hygiene practices in handling this material.  
 Pressurized container: Do not pierce or burn, even after use.  
 Use only with adequate ventilation.  
 Do not breathe gas/fumes/vapor/spray.  
 When using do not eat or drink.  
 Avoid contact with skin and clothing.  
 Avoid contact with eyes.  
 Keep container tightly closed.  
 Wash thoroughly after handling.

**Storage**

Keep out of reach of children.  
 Keep away from heat, open flames or other sources of ignition.  
 Protect from sunlight.  
 Do not store at temperatures above 49 °C (120.2°F).  
 Do not store below 40°F (4.4°C).

## 8. Exposure Controls / Personal Protection

### Exposure limits

Ingredient(s)	Exposure Limits
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)-	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Benzene, 2-isocyanato-1,3-bis(1-methylethyl)-	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Butane	<b>ACGIH-TLV</b> TWA: 1000 ppm <b>OSHA-PEL</b> Not established
Ethanol	<b>ACGIH-TLV</b> TWA: 1000 ppm STEL: 1000 ppm <b>OSHA-PEL</b> TWA: 1000 ppm
Propane	<b>ACGIH-TLV</b> TWA: 1000 ppm <b>OSHA-PEL</b> TWA: 1000 ppm

### Engineering controls

General ventilation normally adequate.

### Personal protective equipment

#### Eye / face protection

Wear safety glasses with side shields.

#### Hand protection

Rubber gloves. Confirm with a reputable supplier first.

#### Skin and body protection

As required by employer code.

#### Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

Appearance	Clear.
Color	Colorless to Straw
Form	Spray
Odor	Not available
Odor threshold	Not available
Physical state	Gas
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation rate	Not available
Flash point	Not available
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available

Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Percent volatile	Not available

## 10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Aerosol containers are unstable at temperatures above 49°C (120.2°F). Do not mix with other chemicals.
Incompatible materials	Caustics. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

## 11. Toxicological Information

### Component analysis - LC50

Ingredient(s)	LC50
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)-	Not available
Benzene, 2-isocyanato-1,3-bis(1-methylethyl)-	Not available
Butane	Not available
Ethanol	31623 ppm rat
Propane	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)-	Not available
Benzene, 2-isocyanato-1,3-bis(1-methylethyl)-	3000 mg/kg mouse
Butane	Not available
Ethanol	3450 mg/kg mouse; 7060 mg/kg rat
Propane	Not available

### Effects of acute exposure

Eye	Causes irritation.
Skin	Causes irritation.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Sensitization	May cause sensitization by inhalation.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	See below.

#### ACGIH - Threshold Limit Values - Carcinogens

Ethanol	64-17-5	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
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Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Further information	Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

Name of Toxicologically Synergistic Products Not available

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## 12. Ecological Information

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**Ecotoxicity** See below

**Ecotoxicity - Freshwater Fish - Acute Toxicity Data**

Ethanol 64-17-5 96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]

**Ecotoxicity - Water Flea - Acute Toxicity Data**

Ethanol 64-17-5 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]

**Persistence / degradability** Not available

**Bioaccumulation / accumulation** Not available

**Mobility in environmental media** Not available

**Environmental effects** Not available

**Aquatic toxicity** Not available

**Partition coefficient** Not available

**Chemical fate information** Not available

**Other adverse effects** Not available

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## 13. Disposal Considerations

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**Disposal instructions** Dispose in accordance with all applicable regulations.

**Waste from residues / unused products** Not available

**Contaminated packaging** Not available

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## 14. Transport Information

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**U.S. Department of Transportation (DOT)**

Consumer Commodity ORM-D

**Transportation of Dangerous Goods (TDG - Canada)**

Consumer Commodity

## 15. Regulatory Information

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

**Canada - CEPA - High Priority Chemicals as Identified by DSL Categorization**

Butane 106-97-8 Batch 4, published November 17, 2007

**Canada - WHMIS - Ingredient Disclosure List**

Butane 106-97-8 1 %  
Ethanol 64-17-5 0.1 %

**WHMIS status** Controlled

**WHMIS classification** Class A - Compressed Gas, Class B - Division 5 - Flammable Aerosol, Class D - Division 2A, 2B

**WHMIS labeling**



**Occupational Safety and Health Administration (OSHA)**

**29 CFR 1910.1200 hazardous chemical** Yes

**US Federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**CERCLA (Superfund) reportable quantity**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - Yes  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

**State regulations** See below

**U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances**

Butane 106-97-8 Present

**U.S. - Massachusetts - Right To Know List**

Butane 106-97-8 Present  
Ethanol 64-17-5 Teratogen  
Propane 74-98-6 Present

**U.S. - Minnesota - Hazardous Substance List**

Butane 106-97-8 Present  
Ethanol 64-17-5 Present  
Propane 74-98-6 Simple asphyxiant

**U.S. - New Jersey - Right to Know Hazardous Substance List**

Butane 106-97-8 sn 0273  
Ethanol 64-17-5 sn 0844  
Propane 74-98-6 sn 1594

**U.S. - Pennsylvania - RTK (Right to Know) List**

Butane 106-97-8 Present  
Ethanol 64-17-5 Present  
Propane 74-98-6 Present

**U.S. - Rhode Island - Hazardous Substance List**

Butane 106-97-8 Toxic; Flammable  
Ethanol 64-17-5 Toxic; Flammable  
Propane 74-98-6 Toxic; Flammable

**Inventory name****Country(s) or region**

Canada

Canada

United States &amp; Puerto Rico

**Inventory name**

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

Toxic Substances Control Act (TSCA) Inventory

**On inventory (yes/no)\***

Yes

No

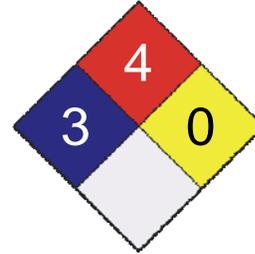
Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other Information**

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	3
Flammability		4
Physical Hazard		0
Personal Protection		X

**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**Expiry date**

15-Sep-2014

**Prepared by**

Nu-Calgon Technical Service (314) 469-7000

**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.