



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)-	ACGIH-TLV Not established OSHA-PEL Not established
Benzene, 2-isocyanato-1,3-bis(1-methylethyl)-	ACGIH-TLV Not established OSHA-PEL Not established
Butane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL Not established
Ethanol	ACGIH-TLV TWA: 1000 ppm STEL: 1000 ppm OSHA-PEL TWA: 1000 ppm
Propane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL 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
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

12. Ecological Information

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]
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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]
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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

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

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 & 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

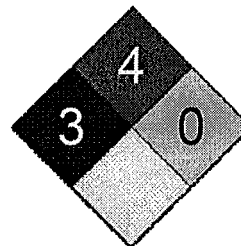
A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

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

Disclaimer.**Issue date****Effective date****Expiry date****Prepared by****Other information**

Health	* 3
Flammability	4
Physical Hazard	0
Personal Protection	X



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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Nu-Calgon Technical Service (314) 469-7000

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