SAFETY DATA SHEET



item #'s 4301-02,4301-05 & 4301-06 SDS # Z0364

1. Product and Company Identification

Product identifier Rx - Acid Scavenger Connect Inject (4301-06)

Other means of identification Not available Acid neutralizer Recommended use None known. Recommended restrictions Nu-Calgon Manufacturer information

> 2611 Schuetz Road St. Louis, MO 63043 US

Phone: 314-469-7000 / 800-554-5499 Emergency

Phone: 1-800-424-9300 (CHEMTREC)

Supplier See above.

2. Hazards Identification

Physical hazards Flammable liquids Category 4 Health hazards Acute toxicity, oral Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2B

Sensitization, respiratory Category 1 Category 1 Sensitization, skin Category 2

Specific target organ toxicity, repeated

exposure Not classified.

Environmental hazards WHMIS 2015 defined hazards

Label elements

Not classified



Signal word

Hazard statement Combustible liquid. Harmful if swallowed. Causes skin irritation. May cause an allergic skin

reaction. Causes eye irritation. May cause allergy or asthma symptoms or breathing difficulties if

inhaled. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevention

Wear protective gloves/eye protection/face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapors/spray. In case of

inadequate ventilation wear respiratory protection.

In case of fire: Use appropriate extinguishing media to extinguish. Response

> IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see information on this label). Take off contaminated

clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing

respiratory symptoms: Call a POISON CENTER/doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Storage Store in a well-ventilated place.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS 2015: Health Hazard(s) not otherwise classified

(HHNOC)

WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)

None known

None known

Page: 1 of 7 Issue date 17 April 2018 4301-06 (Canada/US GHS) Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

Not applicable.

3. Composition/Information on Ingredients

NΛ	lixtı	

Chemical name	Common name and synonyms	CAS number	%
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-m ethylethyl)-		2162-74-5	10 - 15
Benzene, 2-isocyanato-1,3-bis(1-methylethyl)		28178-42-9	0.1 - 1

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing

respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical Skin contact

advice/attention. Specific treatment (see information on this label). Take off contaminated clothing

and wash it before reuse.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment needed

General information

Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause allergic respiratory reaction. May cause redness and pain. Prolonged exposure may cause chronic effects.

Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

5. Fire Fighting Measures

Suitable extinguishing media

Unsuitable extinguishing

media

Dry chemical powder. Foam. Water fog.

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

The product is combustible, and heating may generate vapors which may form explosive vapor/air

mixtures. During fire, gases hazardous to health may be formed.

Special protective equipment

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

and precautions for firefighters

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do

Fire-fighting

so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

Specific methods General fire hazards

Combustible liquid.

Hazardous combustion products

equipment/instructions

May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide (hydrocyanic acid).

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk.

Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact with clothing. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure Controls/Personal Protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Use only under good ventilation conditions or with respiratory protection.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards

Not applicable.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Wash hands after handling and before eating.

9. Physical and Chemical Properties

Appearance Clear
Physical state Liquid
Form Liquid
Color Straw

Odor mild aromatic
Odor threshold Not available
pH Not available
Melting point/freezing point Not available
Initial boiling point and boiling
599 °F (315 °C)

range

Pour point Not available

Specific gravity 0.88

Partition coefficient (n-octanol/water)

Not available

Flash point 148.9 °F (64.9 °C)
Evaporation rate Not available

Page: 3 of 7

Flammability (solid, gas) Not applicable Upper/lower flammability or explosive limits

Jpper/lower flammability or explosive limits

Flammability limit - lower Not available

(%)

Flammability limit - upper

(%)

Not available

Explosive limit - lower (%) Not available

Explosive limit - upper (%) Not available
Vapor pressure Not available

Vapor density

Relative density

Solubility(ies)

Auto-ignition temperature

Decomposition temperature

Viscosity

Not available

Not available

Not available

10. Stability and Reactivity

Reactivity Do not mix with other chemicals.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Chemical stability Material is stable under normal conditions.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Acids. Caustics.

Hazardous decomposition products

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

(hydrocyanic acid).

11. Toxicological Information

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

Information on likely routes of exposure

Ingestion Harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation May cause damage to organs by inhalation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic

skin reaction. Skin irritation. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Harmful if swallowed. May cause an allergic skin reaction. May cause allergy or asthma

symptoms or breathing difficulties if inhaled.

Components Species Test Results

Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)- (CAS 2162-74-5)

Acute

Inhalation

LC50 Not available

Oral

LD50 Rat 300 - 2000 mg/kg

Benzene, 2-isocyanato-1,3-bis(1-methylethyl)- (CAS 28178-42-9)

Acute Inhalation

LC50 Rat 47 mg/m3, 4 hours

Oral

LD50 Mouse 3000 mg/kg

Rat 1414 mg/kg

Skin corrosion/irritation Causes skin irritation.

Exposure minutes Not available
Erythema value Not available
Oedema value Not available

Serious eye damage/eye

irritation

Causes eye irritation

Corneal opacity value
Iris lesion value

Conjunctival reddening

Not available
Not available

value

Conjunctival oedema value Not available

Recover days Not available

Respiratory or skin sensitization

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause an allergic skin reaction.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, NTP, or OSHA.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental

Teratogenicity effects. Not available.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not available.

Chronic effects May cause damage to organs through prolonged or repeated exposure.

12. Ecological Information

Ecotoxicity Not available.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potentialNo data available.Mobility in soilNo data available.Mobility in generalNot available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. This material

and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification

In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.

General

DOT - 49 CFR 173.150 (f) - Combustible Liquid Exemption

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

IATA/ICAO (Air)

Not regulated as dangerous goods.

IMDG (Marine Transport)

Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions

Not applicable

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely

hazardous substance

SARA 311/312 Hazardous

No

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

U.S. State regulations

U.S. Texas Effects Screening Levels: Listed substance

Not listed

U.S. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Inventory status

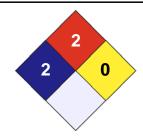
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





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.

Issue date 17-April-2018

Version #

Effective date 17-April-2018

Prepared by Nu-Calgon Technical Service Phone: (314) 469-7000



SAFETY DATA SHEET

Sid Harvey item #'s 4301-02,4301-05 & 4301-06 SDS # Z0364

1. Product and Company Identification

Product identifier Rx-Acid Scavenger (4301-02)

Other means of identification Not available. Recommended use Acid neutralizer **Recommended restrictions** None known.

information Manufacturer/Importer/Supplier/Distributor

Manufacturer

Nu-Calgon Company name Address 2008 Altom Court St. Louis, MO 63146

United States

Telephone 314-469-7000 / 800-554-5499

E-mail info@nucalgon.com

1-800-424-9300 (CHEMTREC) **Emergency phone number**

2. Hazards Identification

Physical hazards Flammable liquids Category 4 **Health hazards** Acute toxicity, oral Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2B Sensitization, respiratory Category 1 Sensitization, skin Category 1

> Specific target organ toxicity, repeated exposure

Not classified.

Environmental hazards OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Combustible liquid. Harmful if swallowed. Causes skin irritation. May cause an allergic skin

reaction. Causes eye irritation. May cause allergy or asthma symptoms or breathing difficulties if

Category 2

inhaled. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Response If swallowed: Call a poison center/doctor/physician if you feel unwell. Rinse mouth.

If on skin: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a poison center/doctor.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell.

Specific treatment (see information on this label). Take off contaminated clothing and wash before

reuse.

In case of fire: Use appropriate extinguishing media to extinguish.

Storage

Disposal

Store in a well-ventilated place. Keep cool.

Hazard(s) not otherwise classified (HNOC)

 $\label{local/regional/national/international regulations.} Dispose of contents/container in accordance with local/regional/national/international regulations.$

None known.

Supplemental information

Not applicable.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Benzene, C14-30-alkyl derivitives		68855-24-3	59.64
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-m ethylethyl)-		2162-74-5	39.76
Benzene, 2-isocyanato-1,3-bis(1-methylethyl)-		28178-42-9	0.6

4. First Aid Measures

Inhalation

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Skin contact

Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

f availation Call a paisan contar/dector/physician/ if you feel unwell. Dines mouth

Ingestion

Most important

If swallowed: Call a poison center/doctor/physician/ if you feel unwell. Rinse mouth.

symptoms/effects, acute and

Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause allergic respiratory reaction. May

delayed

cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special

Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

treatment needed

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately

(show the label where possible). Wash contaminated clothing before reuse.

5. Fire Fighting Measures

Suitable extinguishing media

Dry chemical powder. Foam. Water fog.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Special protective equipment

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

and precautions for firefighters Fire-fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods
General fire hazards

Use standard firefighting procedures and consider the hazards of other involved materials.

Combustible liquid.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area), Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk.

Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact with clothing. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

Conditions for safe storage. including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure Controls/Personal Protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering

controls

Use only under good ventilation conditions or with respiratory protection.

Individual protection measures, such as personal protective equipment

Eye/face protection

Skin protection

Wear safety glasses with side shields (or goggles).

Hand protection

Wear appropriate chemical resistant gloves.

Other

Not available.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Wash hands after handling and before eating.

9. Physical and Chemical Properties

Clear **Appearance** Liquid. Physical state **Form** Liquid. Straw Color

mild aromatic Odor Odor threshold Not available. Not available. Melting point/freezing point Not available. Initial boiling point and boiling 599 °F (315 °C)

range

Not available. Pour point

0.88 Specific gravity

Partition coefficient (n-octanol/water)

Not available

148.9 °F (64.9 °C) Flash point **Evaporation rate** Not available Not applicable. Flammability (solid, gas)

#24505 Page: 3 of 7 Issue date 21-February-2014 Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Flammability limit - upper

Not available

Not available

Not available. Explosive limit - lower (%)

Not available. Explosive limit - upper (%)

Not available. Vapor pressure Vapor density Not available Relative density Not available. Solubility(ies) Insoluble **Auto-ignition temperature** Not available Not available. **Decomposition temperature** Not available. **Viscosity**

Other information

Combustible IIIA Flash point class

10. Stability and Reactivity

Do not mix with other chemicals. Reactivity

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Chemical stability Material is stable under normal conditions.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

Incompatible materials

Hazardous decomposition

products

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

(hydrocyanic acid).

11. Toxicological Information

Information on likely routes of exposure

Ingestion Harmful if swallowed. May cause stomach distress, nausea or vomiting.

Strong oxidizing agents. Acids. Caustics.

Inhalation May cause damage to organs by inhalation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Causes skin irritation. May cause an allergic skin reaction. Skin contact

Eye contact Causes eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic

skin reaction. Skin irritation. Dermatitis. Rash.

Information on toxicological effects

Harmful if swallowed. May cause an allergic skin reaction. May cause allergy or asthma **Acute toxicity**

symptoms or breathing difficulties if inhaled. Expected to be a low hazard for usual industrial or

commercial handling by trained personnel.

Components **Test Results** Species

Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)- (CAS 2162-74-5)

Acute

Oral

LD50 Rat 300 - 2000 mg/kg

LC50

Not available.

Benzene, 2-isocyanato-1,3-bis(1-methylethyl)- (CAS 28178-42-9)

Acute

Inhalation

LC50 Rat 47 mg/m3, 4 hours

Oral

LD50 Mouse 3000 mg/kg Rat 1414 mg/kg

Test Results Components Species Benzene, C14-30-alkyl derivitives (CAS 68855-24-3) Acute Dermal Rabbit LD50 > 7940 mg/kg Oral LD50 Rat > 15800 mg/kg LC50 Not available. Skin corrosion/irritation Causes skin irritation. Not available. **Exposure minutes** Not available. Ervthema value Oedema value Not available. Causes eye irritation. Serious eye damage/eye irritation Not available. Corneal opacity value Not available. Iris lesion value Conjunctival reddening Not available. value Not available. Conjunctival oedema value Recover days Not available. Respiratory or skin sensitization Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled. Skin sensitization May cause an allergic skin reaction. No data available to indicate product or any components present at greater than 0.1% are Germ cell mutagenicity mutagenic or genotoxic. Carcinogenicity This product is not considered to be a carcinogen by IARC, NTP, or OSHA. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. Reproductive toxicity This product is not expected to cause reproductive or developmental effects. Not classified. Specific target organ toxicity single exposure Specific target organ toxicity -May cause damage to organs through prolonged or repeated exposure. repeated exposure **Aspiration hazard** Not available. **Chronic effects** May cause damage to organs through prolonged or repeated exposure. **Further information** Not available.

12. Ecological Information

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity**

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

No data is available on the degradability of this product. Persistence and degradability

Bioaccumulative potential No data available. Mobility in soil No data available. Mobility in general Not available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material **Disposal instructions** and its container must be disposed of as hazardous waste. Do not allow this material to drain into

sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Dispose in accordance with all applicable regulations. Local disposal regulations

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

IATA/ICAO (Air)

Not regulated as dangerous goods.

IMDG (Marine Transport)

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

CERCLA Hazardous Substance List (40 CFR 302.4)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely

hazardous substance

Nο

No

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

Food and Drug Administration (FDA) Not regulated.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

US. Rhode Island RTK

Not regulated.

Country(s) or region Inventory name

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory On inventory (yes/no)* Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH 2 * 2 **FLAMMABILITY** 0 PHYSICAL HAZARD PERSONAL PROTECTION



Disclaimer

Issue date

Further information

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.

21-February-2014

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the

document.

Nu-Calgon Technical Service Phone: (314) 469-7000 Prepared by



MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name Nu-Calgon Wholesaler, Inc.	Phone Number (314) 469-7000 / (800)	554-5499		CHEMTREC (800) 424-9300	
Street Address 2008 Altom Court	City St. Louis	State MO	Postal 63146-		Last Update 11/8/06
Product Name Rx-Acid Scavenger	Product Number 4301	Product Use Acid neutralizer			EPA Registration # N/A

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	<u>% By Wt.</u>	CAS Number	TLV	PEL
Alkyl Benzene	98%	68855-24-3	N/A	N/A
Carbodiimide	2%	2162-74-5	N/A	N/A

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: CAUTION: May cause respiratory tract, eye and skin irritation. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Do not ingest.

Potential Health Effects

Eyes: Moderately irritating to eyes and skin.

Skin: Moderately irritating to eyes and skin.

Ingestion: May cause gastrointestinal irritation and diarrhea.

Inhalation: Moderately irritating to the respiratory system.

<u>Chronic Exposure</u>: See hazardous decomposition statement in section X – Reactivity Data. These isocynate compounds can cause allergic skin and respiratory reactions, as well as acute irritation effects to the eyes, skin, mucous membranes, and digestive tract.

Carcinogenicity: No Data.

Medical Conditions Aggravated be Exposure: Repeated or prolonged contact is not known to aggravate medical condition.

SECTION 4 – FIRST AID MEASURES

Eves: Check for and remove any contact lenses. In case of contact, flush eyes with plenty of water for at least 15 minutes. If irritation develops, get medical attention.

Skin: In case of contact, flush with plenty of water. If irritation develops, get medical attention. Remove contaminated clothing & shoes. Wash clothing and shoes before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: 148.9°F

Autoignition Temp: No Data. °C/No Data. °F

Hazardous Products of Combustion: No Data.

Flammable Limits in Air: No Data.

Extinguishing Media: CO2, dry chemical, foam, water fog or foam

Fire and Explosion Hazards: None

Special Firefighting Procedures: For fires involving this material, do not enter any closed or confined fire space without proper protection equipment. This may include self-contained breathing apparatus to protect against the hazardous effect of normal products of combustion or oxygen deficiency.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak: Spill Management: Absorb spill with an inert material and put into an appropriate waste disposal. Do not allow to enter drains or waterways. Waste Disposal Methods: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: Precautionary Measures: DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed. General Handling information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water. Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge.

Storage Requirements: Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is not required for the use of this product. Wear appropriate respirator when ventilation is inadequate.

Eve Protection: Safety glasses with side shield or chemical goggles. In case of eye contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.

Protective Clothing: Wear appropriate protective clothing and chemically resistant gloves to prevent skin contact. Impervious gloves.

Exposure Guidelines: No Data.

<u>Specific Engineering Controls (such as ventilation, enclosed process)</u>: Provide exhaust ventilation or other engineered controls to keep airborne concentrations of vapors in control. Ensure that eyewash stations and safety showers are available.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: No Data.	Freezing Point: No Data. °C/No Data. °F	% Volatile by Weight: No Data.%
Color: Clear, straw-colored liquid	Vapor Density [air =1]: No Data.	Evaporation Rate: No Data.
Odor: mild aromatic	Vapor Pressure: No Data.	Specific Gravity: H20=1 @25 ° C:0.88(+/-0.03)
Boiling Point: 315°C/No Data.°F	Solubility in Water: Insoluble	pH (concentrate): No Data.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable

Hazardous Polymerization: Will not occur.

Incompatibilities: Reactive with oxidizing agents, acids, alkalis

Reactive Conditions to avoid: Strong oxidizers, heat, sources of ignition

Decomposition Products: By fire or thermal decomposition: CO, CO2, oxides of nitrogen, traces of hydrogen cyanide (HCN), 2,6-diisopropylphenyl isocyanate (DIPPI), aniline derivatives, and carbamates may be produced. At temperatures above 350° F (180 °C) the aromatic urea formed from the carbodiimide-water reaction thermally degrades to the corresponding isocyanate and amine.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS#	EINECS #	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
No Data.	No Data.	No Data.	No Data.	No Data.

SECTION 12 – ECOLOGICAL INFORMATION

Hazardous Ingredients	Aquatic Toxicity Data
	Respiratory protection is not required for the use of this product. Wear appropriate respirator when ventilation is inadequate.
	ENVIRONMENTAL FATE: This material is not expected to be readily biodegradable.

SECTION 13 – DISPOSAL CONSIDERATIONS

<u>Waste Disposal</u>: Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

<u>Purview</u>	Proper Shipping Name	<u>UN Number</u>	Packing Group	Hazard Class
DOT (Land)	NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49CFR	No Data.	No Data.	No Data.
IMO (Water)	NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER THE IMDG CODE	No Data.	No Data.	No Data.
ICAO (Air)	No Data.	No Data.	No Data.	No Data.

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	Not regulated by WHMIS.		
SARA Title III: (Superfund Amendments & Reauthorization Act)	EPCRA 311/312 categories 1-5: NO		
OSHA: (Occupational Safety & Health Administration)	No Data.		
TSCA: (Toxic Substance Control Act)	No Data.		
VOC: (volatile Organic Compounds)	No Data.		
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.		
EINECS: (European Inventory of Existing Commercial Chemical Substances)	No Data.		
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	No Data.		
CERCLA: (Comprehensive Response Compensation & Liability Act)	No Data.		
IDL: (Canadian Ingredient Disclosure List)	No Data.		
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	Health Hazard		

SECTION 16 – OTHER INFORMATION

Precautions to be taken in Handling and Storing: Do not weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently.

CAUTION! Do not use pressure to empty drum or explosion may result. Additional Information: Read and observe all label precautions.

AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).

CANADA: All the components of this material are on the Canadian DSL or have been notified under the New Substance Notification Regulations, but have not yet been published in the Canada Gazette.

EUROPENA UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

JAPAN: All the components of this product are on the Existing & new Chemical Substances (ENCS) inventory in Japan, or have an exemption from listing. KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.

PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Nu-Calgon Wholesaler Inc. assumes no liability for injury from the use of the product described herin.