

SAFETY DATA SHEET

1. Product and Company Identification

SDS REC'D by Trane October 8

Product identifier Spray-N-Bond (4369-75) ADH00030

Other means of identification Not available Adhesive Recommended use Recommended restrictions None known. 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

Physical hazards Flammable aerosols Category 1

> Liquefied gas Gases under pressure Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2

Reproductive toxicity (the unborn child) Category 2 Specific target organ toxicity, single exposure Category 3 narcotic effects

Not classified. **Environmental hazards** Not classified. **OSHA** defined hazards

Label elements

Health hazards



Signal word

Hazard statement Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open

flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face

protection.

Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood.

Do not breathe gas. Use only outdoors or in a well-ventilated area.

If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take Response

off contaminated clothing and wash before reuse.

Specific treatment (see this label). 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.

If exposed or concerned: Get medical advice/attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison

center/doctor if you feel unwell.

Storage Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations. Hazard(s) not otherwise

classified (HNOC)

Supplemental information

None known.

Not applicable.

3. Composition/Information on Ingredients

| Mixture | | | |
|--------------------------------------|--------------------------|-------------|-------|
| Chemical name | Common name and synonyms | CAS number | % |
| Propane | | 74-98-6 | 21-23 |
| Acetone | | 67-64-1 | 19-21 |
| Butane | | 106-97-8 | 16-18 |
| Heptane | | 142-82-5 | 11-13 |
| Heptane, Branched, Cyclic And Linear | | 426260-76-6 | 11-13 |
| Methyl acetate | | 79-20-9 | 4-6 |
| Toluene | | 108-88-3 | 0.1-1 |
| | | | |

4. First Aid Measures

Inhalation If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison

center/doctor if you feel unwell.

chronic effects.

If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off Skin contact

contaminated clothing and wash before reuse.

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

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

Ingestion If swallowed: Immediately call a poison center/doctor. DO NOT induce vomiting.

Most important

symptoms/effects, acute and delayed

Indication of immediate medical attention and special Provide general supportive measures and treat symptomatically. Keep victim under observation.

cause drowsiness or dizziness. May cause redness and pain. Prolonged exposure may cause

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May

treatment needed

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. Wear suitable protective clothing.

Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Firefighters must use standard protective equipment including flame retardant coat, helmet with

Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose

5. Fire Fighting Measures

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

face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Powder. Alcohol resistant foam. Carbon dioxide (CO2).

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters

Fire-fighting

equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials. Move Specific methods containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards Extremely flammable aerosol. Hazardous combustion May include and are not limited to: Oxides of carbon.

products

Explosion data

Sensitivity to mechanical impact

Sensitivity to static discharge

Not available. Not available.

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. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid breathing gas. Ventilate closed spaces before entering them. 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

Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Dike far ahead of spill for later disposal. Scoop up used absorbent into drums or other appropriate container. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. 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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not breathe gas. Avoid contact during pregnancy/while nursing. Avoid contact with eyes, skin and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use personal protective equipment as required. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

8. Exposure Controls/Personal Protection

| 8. Exposure Controls/Personal Protection | | | | |
|--|-----------------------------------|------------|--|--|
| upational exposure limits | | | | |
| US. OSHA Table Z-1 Limits for Ai | r Contaminants (29 CFR 1910.1000) | | | |
| Components | Туре | Value | | |
| Acetone (CAS 67-64-1) | PEL | 2400 mg/m3 | | |
| | | 1000 ppm | | |
| Heptane (CAS 142-82-5) | PEL | 2000 mg/m3 | | |
| | | 500 ppm | | |
| Methyl acetate (CAS 79-20-9) | PEL | 610 mg/m3 | | |
| | | 200 ppm | | |
| Propane (CAS 74-98-6) | PEL | 1800 mg/m3 | | |
| | | 1000 ppm | | |
| US. OSHA Table Z-2 (29 CFR 191 | | | | |
| Components | Туре | Value | | |
| Toluene (CAS 108-88-3) | Ceiling | 300 ppm | | |
| | TWA | 200 ppm | | |
| US. ACGIH Threshold Limit Value | es | | | |
| Components | Туре | Value | | |
| Acetone (CAS 67-64-1) | STEL | 750 ppm | | |
| | TWA | 500 ppm | | |
| Butane (CAS 106-97-8) | STEL | 1000 ppm | | |
| Heptane (CAS 142-82-5) | STEL | 500 ppm | | |
| · | TWA | 400 ppm | | |
| Methyl acetate (CAS 79-20-9) | STEL | 250 ppm | | |
| | TWA | 200 ppm | | |
| Toluene (CAS 108-88-3) | TWA | 20 ppm | | |
| US. NIOSH: Pocket Guide to Che | mical Hazards | | | |
| Components | Туре | Value | | |
| Acetone (CAS 67-64-1) | TWA | 590 mg/m3 | | |
| | | 250 ppm | | |
| Butane (CAS 106-97-8) | TWA | 1900 mg/m3 | | |
| | | 800 ppm | | |

| LIS | NIOSH: | Pocket | Guide to | Chemical | Hazarde |
|-----|----------|--------|----------|-----------|--------------|
| UJ. | INICOII. | LOCKE | Guiue io | CHEIIIICA | i i iazai us |

| Components | Туре | Value | |
|------------------------------|---------|------------------------|--|
| Heptane (CAS 142-82-5) | Ceiling | 1800 mg/m3 440 ppm | |
| | TWA | 350 mg/m3 85 ppm | |
| Methyl acetate (CAS 79-20-9) | STEL | 760 mg/m3 | |
| | | 250 ppm | |
| | TWA | 610 mg/m3 200 ppm | |
| Propane (CAS 74-98-6) | TWA | 1800 mg/m3 1000 ppm | |
| Toluene (CAS 108-88-3) | STEL | 560 mg/m3 150 ppm | |
| | TWA | 375 mg/m3 100 ppm | |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time |
|------------------------|-----------|------------------------------|---------------------|---------------|
| Acetone (CAS 67-64-1) | 50 mg/l | Acetone | Urine | * |
| Toluene (CAS 108-88-3) | 0.3 mg/g | o-Cresol, with hydrolysis | Creatinine in urine | * |
| | 0.03 mg/l | Toluene | Urine | * |
| | 0.02 mg/l | Toluene | Blood | * |

^{* -} For sampling details, please see the source document.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

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

Skin protection

Hand protection Wear protective gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection Wear positive pressure self-contained breathing apparatus (SCBA). In case of insufficient

ventilation, wear suitable respiratory equipment.

Thermal hazards Not applicable.

General hygiene considerations

Partition coefficient

(n-octanol/water)

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.

9. Physical and Chemical Properties

| Appearance | Clear |
|---|----------------|
| Physical state | Gas. |
| Form | Aerosol |
| Color | Light yellow |
| Odor | Solvent |
| Odor threshold | Not available. |
| pH | Not applicable |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Pour point | Not available. |
| Specific gravity | 0.840 (Concent |

Not available.

Not available.

0.840 (Concentrate)

Not available.

Flash point < 0.0 °F (< -17.8 °C) (Concentrate)

Evaporation rate Not available.
Flammability (solid, gas) Not applicable.
Upper/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 60 psig @ 70°F

Vapor density Not available.

Relative density Not available.

Solubility(ies) Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

> 20.5 mm²/s

Other information

Flame extension > 70 cm
Flammability (flash back) Yes
Heat of combustion 40.9 kJ/g
VOC (Weight %) 53.5 %

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 stabilityMaterial is stable under normal conditions.Conditions to avoidContact with incompatible materials.Incompatible materialsStrong oxidizing agents. Acids.

Hazardous decomposition

products

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

11. Toxicological Information

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

Information on likely routes of exposure

Ingestion Expected to be a low ingestion hazard.

Inhalation Prolonged inhalation may be harmful. Narcotic effects.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation. Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness,

nausea and vomiting.

Information on toxicological effects

Acute toxicity Narcotic effects.

Components Species Test Results

Acetone (CAS 67-64-1)

Acute

Dermal

LD50 Rabbit 15800 mg/kg

20 ml/kg

Inhalation

LC50 Mouse 44000 mg/m3/4H

Rat 76 mg/l, 4 Hours

50.1 mg/l, 8 Hours

| Components Spacies Test Results Oral 1.050 Human 2857 mg/kg LD50 Human 2857 mg/kg Mouse 3000 mg/kg 3000 mg/kg Butane (CAS 106-97-8) Acute 5340 mg/kg Inhabation 688 mg/l. 2 Hours 688 mg/l. 2 Hours LC50 Mouse 658 mg/l. 4 Hours LD50 Not available 558 mg/l. 4 Hours Heptane (CAS 142-82-5) 103 mg/l, 4 Hours LD50 Rat 103 mg/l, 4 Hours LD50 Rat 1050 mg/kg LD50 Rat 10500 mg/kg Heptane, Branched, Cyclic And Limear (CAS 426280-76-6) 15000 mg/kg LD50 Not available 15000 mg/kg LD50 Not available > 5000 mg/kg LD50 Ratbit > 50000 mg/kg Demnal Rabbit > 16000 ppm LD50 Ratbit > 16000 ppm LD50 Ratbit > 16000 ppm Propane (CAS 74-98-0) Acute > 5000 mg/kg < | Components | Species | Test Results |
|--|-------------------------------|----------------------------|--|
| | Components | Species | |
| LD50 | Oral | | 33 mg//411 |
| Mouse | | Human | 2857 ma/ka |
| Rabibit | | | |
| Rutaire (CAS 106-97-8) Rat | | | |
| Butane (CAS 106-97-8) | | | |
| | D : (0.0 (0.0 = 0) | Rat | 5800 mg/kg |
| Inhalation | | | |
| CC50 | | | |
| Part | | Mouse | 680 ma/l. 2 Hours |
| | | | |
| Coral LD50 Not available | | · · · | |
| LD50 | Orol | | 050 mg//4m |
| Heptane (CAS 142-82-5) | | Not available | |
| Acute Inhalation | | | |
| Inhalation LC50 Mouse 75 mg/l, 2 Hours | | | |
| LC50 Rat 103 mg/l, 4 Hours LD50 Mouse 75 mg/l, 2 Hours Oral LD50 Rat 15000 mg/kg Heptane, Branched, Cyclic And Linuar (CAS 426260-76-6) Acute Inhalation LC50 Not available Inhalation LD50 Not available Inhalation LD50 Rabbit > 50000 mg/kg Inhalation Inhalation Inhalation LD50 Rat > 16000 ppm Oral Rat > 50000 mg/kg LD50 Rat > 50000 mg/kg Propane (CAS 74-98-6) Acute > 50000 mg/kg Inhalation Inhalation Inhalation LC50 Rat > 1442.8 mg/l, 15 Minutes Oral Inhalation Inhalation LC50 Rat 12196 mg/kg, Sigma TOLUENE (CAS 108-88-3) 12125 mg/kg Acute 8390 mg/kg Dermal 12125 mg/kg LD50 Rabbit 12125 mg/kg Moute 12125 mg/kg Mou | | | |
| Oral LDS0 | | Rat | 103 mg/l, 4 Hours |
| Oral LD50 Rat 15000 mg/kg 15000 mg | LD50 | Mouse | 75 mg/l, 2 Hours |
| LD50 | Oral | | • |
| Acute Inhalation LC50 | | Rat | 15000 mg/kg |
| Acute Inhalation LC50 | Heptane, Branched, Cyclic And | d Linear (CAS 426260-76-6) | |
| LC50 Not available Oral LD50 Not available Methyl acetate (CAS 79-20-9) Not available Methyl acetate (CAS 79-20-9) Foot available Dermal LD50 Rabbit > 5000 mg/kg LD50 Rat > 16000 ppm Oral LD50 Rat > 5000 mg/kg Propane (CAS 74-98-6) Rat > 5000 mg/kg Acute Inhalation LC50 Rat > 1442.8 mg/l, 15 Minutes Oral LD50 Not available Toluene (CAS 108-88-3) Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma LD50 Rabbit 12125 mg/kg 3890 mg/kg 3890 mg/kg 14.1 m/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | , | |
| Oral LD50 Not available Methyl acetate (CAS 79-20-9) Acute Acute Dermal LD50 Rabbit > 5000 mg/kg Inhalation LC50 Rat > 16000 ppm Oral LD50 Rabbit 3705 mg/kg LD50 Rabbit 3705 mg/kg Propane (CAS 74-98-6) Rat > 5000 mg/kg Acute Inhalation LD50 Rat > 1442.8 mg/l, 15 Minutes COral LD50 Not available Not available Toluene (CAS 108-88-3) Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma LD50 Rabbit 12125 mg/kg 3390 mg/kg Inhalation LD50 Mouse 7100 mg/l, 4 Hours | | | |
| LD50 | LC50 | Not available | |
| Acute Dermal 25000 mg/kg LD50 Rabbit 25000 mg/kg Inhalation 25000 mg/kg LC50 Rat 216000 ppm Oral 3705 mg/kg LD50 Rat 25000 mg/kg Propane (CAS 74-98-6) 3705 mg/kg Acute 1nhalation 21442.8 mg/l, 15 Minutes LC50 Rat 21442.8 mg/l, 15 Minutes Oral LD50 Not available Toluene (CAS 108-88-3) 300 mg/kg Acute 12196 mg/kg, Sigma LD50 Rabbit 12125 mg/kg Boyng/kg 8390 mg/kg LD50 Mouse 7100 mg/l, 4 Hours | | | |
| Acute | | Not available | |
| Dermal LD50 Rabbit > 5000 mg/kg | | | |
| LD50 Rabbit >5000 mg/kg | | | |
| Inhalation LC50 | | Rabbit | > 5000 mg/kg |
| LC50 Rat > 16000 ppm Oral LD50 Rabbit 3705 mg/kg LC50 Rat > 5000 mg/kg Propane (CAS 74-98-6) ***Acute** ***Acute** Inhalation LC50 Rat > 1442.8 mg/l, 15 Minutes Oral LD50 Not available ****Acute** *****Acute** Dermal LD50 Rabbit 12196 mg/kg, Sigma LD50 Rabbit 12125 mg/kg 8390 mg/kg 3390 mg/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | Nabbit | > 5000 Hig/kg |
| Oral LD50 Rabbit 3705 mg/kg Fropane (CAS 74-98-6) > 5000 mg/kg Acute Inhalation LC50 Rat > 1442.8 mg/l, 15 Minutes Oral LD50 Not available Toluene (CAS 108-88-3) X Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma LD50 Rabbit 12125 mg/kg 8390 mg/kg 8390 mg/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | Rat | > 16000 ppm |
| LD50 Rabbit 3705 mg/kg Propane (CAS 74-98-6) Acute Inhalation Innalation | | | , 10000 pp |
| Rat > 5000 mg/kg | | Rabbit | 3705 mg/kg |
| Propane (CAS 74-98-6) Acute Inhalation Mouse 7100 mg/l, 4 Hours | | Rat | |
| Acute Inhalation LC50 Rat > 1442.8 mg/l, 15 Minutes Oral LD50 Not available Toluene (CAS 108-88-3) Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma LD50 Rabbit 12125 mg/kg 8390 mg/kg 8390 mg/kg 14.1 ml/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | Propage (CAS 74-98-6) | | and the state of t |
| Inhalation LC50 | | | |
| LC50 Rat > 1442.8 mg/l, 15 Minutes Oral LD50 Not available Image: CAS 108-88-3) Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma LD50 Rabbit 12125 mg/kg 8390 mg/kg 8390 mg/kg 14.1 ml/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | | |
| LD50 Not available Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma LD50 12125 mg/kg 8390 mg/kg 8390 mg/kg 14.1 ml/kg Inhalation Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | Rat | > 1442.8 mg/l, 15 Minutes |
| Toluene (CAS 108-88-3) Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma 12125 mg/kg 8390 mg/kg 8390 mg/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | Oral | | |
| Acute Dermal LD50 Rabbit 12196 mg/kg, Sigma 12125 mg/kg 8390 mg/kg 8390 mg/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | LD50 | Not available | |
| Dermal LD50 Rabbit 12196 mg/kg, Sigma 12125 mg/kg 8390 mg/kg 8390 mg/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | Toluene (CAS 108-88-3) | | |
| LD50 Rabbit 12196 mg/kg, Sigma 12125 mg/kg 8390 mg/kg 8390 mg/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | | |
| 12125 mg/kg 8390 mg/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | D.I.I.Y | 40400 // 21 |
| 8390 mg/kg 14.1 ml/kg Inhalation LC50 Mouse 7100 mg/l, 4 Hours | LD50 | Kabbit | |
| Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | | |
| Inhalation LC50 Mouse 7100 mg/l, 4 Hours | | | 8390 mg/kg |
| LC50 Mouse 7100 mg/l, 4 Hours | | | 14.1 ml/kg |
| • | | | |
| 5320 ppm, 8 Hours | LC50 | Mouse | |
| | | | 5320 ppm, 8 Hours |

Components **Species Test Results**

400 ppm, 24 Hours

26700 ppm, 1 Hours Rat

<= 28800 mg/m³, 4 Hours, Sigma

12200 ppm, 2 Hours 8000 ppm, 4 Hours

12.5 mg/l/4h

Oral

LD50 Rat > 5580 mg/kg, Sigma

636 mg/kg

Causes skin irritation. Skin corrosion/irritation

Not available. **Exposure minutes** Not available. Erythema value Oedema value Not available.

Serious eye damage/eye

irritation

Causes serious eye irritation.

Not available. Corneal opacity value Not available. Iris lesion value Conjunctival reddening

value

Not available.

Not available. Conjunctival oedema value Not available. Recover days

Respiratory or skin sensitization

Not available. Respiratory sensitization

Skin sensitization This product is not expected to cause skin sensitization.

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

mutagenic or genotoxic.

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

mutagenic or genotoxic.

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

ACGIH Carcinogens

Acetone (CAS 67-64-1) A4 Not classifiable as a human carcinogen. Toluene (CAS 108-88-3) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Toluene (CAS 108-88-3) Volume 47, Volume 71 - 3 Not classifiable as to carcinogenicity to

humans.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2) Carcinogenic. Benzene, ethyl- (CAS 100-41-4) Carcinogenic.

Suspected of damaging the unborn child. Reproductive toxicity

Toluene (benzene, methyl-) has caused fetotoxicity (reduced fetal weight), behavioural effects **Teratogenicity**

(effects on learning and memory) and hearing loss (in males). These effects have been observed in the offspring of rats exposed by inhalation to 1200 or 1800 ppm toluene. These effects were

observed in the absence of maternal toxicity.

Specific target organ toxicity -

single exposure

Narcotic effects.

Specific target organ toxicity -

repeated exposure

Not applicable.

Aspiration hazard Not applicable.

Chronic effects Prolonged inhalation may be harmful.

Not available. **Further information** Not available. Name of Toxicologically

Synergistic Products

12. Ecological Information

See below **Ecotoxicity**

| | | | | 6691 |
|---|--|--|--|-----------------------|
| Components | | Species | Test Results | |
| Acetone (CAS 67-64-1) | | | | |
| Crustacea | EC50 | Daphnia | 13999 mg/L, 48 Hours | |
| Aquatic | | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 21.6 - 23.9 mg/l, 48 hours | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 4740 - 6330 mg/l, 96 hours | |
| Heptane (CAS 142-82-5) | | | | |
| Aquatic | | | | |
| Fish | LC50 | Mozambique tilapia (Tilapia mossambica) | 375 mg/l, 96 hours | |
| Methyl acetate (CAS 79-20-9) |) | | | |
| Algae | IC50 | Algae | 120 mg/L, 72 Hours | |
| Crustacea | EC50 | Daphnia | 1026.7 mg/L, 48 Hours | |
| Aquatic | | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 295 - 348 mg/l, 96 hours | |
| Toluene (CAS 108-88-3) | | | | |
| Algae | IC50 | Algae | 433 mg/L, 72 Hours | |
| Crustacea | EC50 | Daphnia | 7.645 mg/L, 48 Hours | |
| Aquatic | | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 5.46 - 9.83 mg/l, 48 hours | |
| Fish | LC50 | Coho salmon,silver salmon (Oncorhynchus kisutch) | 8.11 mg/l, 96 hours | |
| Persistence and degradability | No data is av | ailable on the degradability of this product. | | |
| Bioaccumulative potential | No data avail | able. | | |
| Mobility in soil | No data avail | able. | | |
| Mobility in general | Not available | | | |
| Other adverse effects | | erse environmental effects (e.g. ozone depl locrine disruption, global warming potential) | | |
| | , | 13. Disposal Considerations | | |
| Disposal instructions | must be disposupplies. Do | ler pressure. Do not puncture, incinerate or osed of as hazardous waste. Do not allow the not contaminate ponds, waterways or ditchentents/container in accordance with local/re | nis material to drain into sew es with chemical or used cor | ers/water ntainer. |
| 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. | | | |
| US RCRA Hazardous Waste | U List: Refere | nce | | |
| Acetone (CAS 67-64-1) Toluene (CAS 108-88-3) | | U002 U220 | | |
| Waste from residues / unused products | | accordance with local regulations. Empty of ues. This material and its container must be ructions). | , | |
| Contaminated packaging | Since emptie | ners should be taken to an approved waste d containers may retain product residue, fol | | • |

14. Transport Information

emptied. Do not re-use empty containers.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number UN1950

Proper shipping name Aerosols, flammable Hazard class Limited Quantity - US

Special provisions N82 **Packaging exceptions** 306

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN1950

Proper shipping name AEROSOLS, flammable Hazard class Limited Quantity - Canada

Special provisions 80

IATA/ICAO (Air)

Basic shipping requirements:

UN number UN1950

Proper shipping name Aerosols, flammable Hazard class Limited Quantity - IATA

IMDG (Marine Transport)

Basic shipping requirements:

UN number UN1950

Proper shipping name AEROSOLS, flammable Hazard class Limited Quantity - US

DOT; IMDG; TDG



15. Regulatory Information

Canadian federal regulations

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

Canada DSL Challenge Substances: Listed substance

Butane (CAS 106-97-8)

Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Butane (CAS 106-97-8) 1 TONNES Heptane (CAS 142-82-5) 1 TONNES Propane (CAS 74-98-6) 1 TONNES Toluene (CAS 108-88-3) 1 TONNES

Canada WHMIS Ingredient Disclosure: Threshold limits

Acetone (CAS 67-64-1) 1 %
Butane (CAS 106-97-8) 1 %
Heptane (CAS 142-82-5) 1 %
Methyl acetate (CAS 79-20-9) 1 %
Toluene (CAS 108-88-3) 1 %

WHMIS status Controlled

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

WHMIS labeling







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

Standard, 29 CFR 1910.1200.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Toluene (CAS 108-88-3) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Toluene (CAS 108-88-3) Listed.

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

Not regulated.

US CWA Section 311 Hazardous Substances: Listed substance

Toluene (CAS 108-88-3) Listed.

US CWA Section 307(a)(1) Toxic Pollutants: Listed substance

Toluene (CAS 108-88-3) Listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1) Listed. Butane (CAS 106-97-8) Listed. Heptane (CAS 142-82-5) Listed. Methyl acetate (CAS 79-20-9) Listed. Propane (CAS 74-98-6) Listed. Toluene (CAS 108-88-3) Listed. US CAA Section 111 Volatile Organic Compounds: Listed substance

Listed. Acetone (CAS 67-64-1) Methyl acetate (CAS 79-20-9) Listed. Toluene (CAS 108-88-3) Listed.

US CAA Section 112(r) Accidental Release Prevention - Regulated Flammable Substance: Listed substance

Butane (CAS 106-97-8) Regulated flammable substance. Propane (CAS 74-98-6) Regulated flammable substance.

US CAA Section 112(r) Accidental Release Prevention: Threshold quantity

Butane (CAS 106-97-8) 10000 LBS Propane (CAS 74-98-6) 10000 LBS

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

Butane (CAS 106-97-8) Listed. Propane (CAS 74-98-6) Listed.

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

Toluene (CAS 108-88-3) Listed.

US CAA Section 612 SNAP Program: Listed substance

Acetone (CAS 67-64-1) Listed. Butane (CAS 106-97-8) Listed. Propane (CAS 74-98-6) Listed.

US CAA VOCs with Negligible Photochemical Activity: Listed substance

Acetone (CAS 67-64-1) Listed. Methyl acetate (CAS 79-20-9) Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes **Hazard categories**

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

Safe Drinking Water Act Not regulated.

(SDWA)

Food and Drug Not regulated.

Administration (FDA)

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer and

birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Acetone (CAS 67-64-1) Listed. Butane (CAS 106-97-8) Listed. Heptane (CAS 142-82-5) Listed.

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Methyl acetate (CAS 79-20-9)
                                                       Listed.
    Toluene (CAS 108-88-3)
                                                       Listed.
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
    Benzene (CAS 71-43-2)
                                                       Listed.
    Benzene, ethyl- (CAS 100-41-4)
                                                       Listed.
    Toluene (CAS 108-88-3)
                                                       Listed.
US - Illinois Chemical Safety Act: Listed substance
                                                       Listed.
    Acetone (CAS 67-64-1)
    Butane (CAS 106-97-8)
                                                       Listed.
    Heptane (CAS 142-82-5)
                                                       Listed.
    Methyl acetate (CAS 79-20-9)
                                                       Listed.
    Propane (CAS 74-98-6)
                                                       Listed.
    Toluene (CAS 108-88-3)
                                                       Listed.
US - Louisiana Spill Reporting: Listed substance
    Acetone (CAS 67-64-1)
                                                       Listed.
    Butane (CAS 106-97-8)
                                                       Listed.
    Heptane (CAS 142-82-5)
                                                       Listed.
    Methyl acetate (CAS 79-20-9)
                                                       Listed.
    Propane (CAS 74-98-6)
                                                       Listed.
    Toluene (CAS 108-88-3)
                                                       Listed.
US - Michigan Critical Materials Register: Parameter number
    Toluene (CAS 108-88-3)
                                                       00108-88-3 Listed.
US - Minnesota Haz Subs: Listed substance
    Acetone (CAS 67-64-1)
                                                       Listed.
    Butane (CAS 106-97-8)
                                                       Listed.
    Heptane (CAS 142-82-5)
                                                       Listed.
    Methyl acetate (CAS 79-20-9)
                                                       Listed.
    Propane (CAS 74-98-6)
                                                       Listed.
    Toluene (CAS 108-88-3)
                                                       Listed.
US - New Jersey RTK - Substances: Listed substance
    Acetone (CAS 67-64-1)
                                                       Listed.
    Butane (CAS 106-97-8)
                                                       Listed.
    Heptane (CAS 142-82-5)
                                                       Listed.
    Methyl acetate (CAS 79-20-9)
                                                       Listed.
                                                       Listed.
    Propane (CAS 74-98-6)
    Toluene (CAS 108-88-3)
                                                       Listed.
US - New York Release Reporting: Hazardous Substances: Listed substance
    Acetone (CAS 67-64-1)
                                                       Listed.
    Toluene (CAS 108-88-3)
                                                       Listed.
US - North Carolina Toxic Air Pollutants: Listed substance
    Toluene (CAS 108-88-3)
                                                       Listed.
US - Texas Effects Screening Levels: Listed substance
    Acetone (CAS 67-64-1)
                                                       Listed.
    Butane (CAS 106-97-8)
                                                       Listed.
    Heptane (CAS 142-82-5)
                                                       Listed.
    Methyl acetate (CAS 79-20-9)
                                                       Listed.
    Propane (CAS 74-98-6)
                                                       Listed.
    Toluene (CAS 108-88-3)
                                                       Listed.
US - Washington Chemical of High Concern to Children: Listed substance
    Toluene (CAS 108-88-3)
                                                       Listed.
US. Massachusetts RTK - Substance List
    Acetone (CAS 67-64-1)
                                                       Listed.
    Butane (CAS 106-97-8)
                                                       Listed.
    Heptane (CAS 142-82-5)
                                                       Listed.
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Methyl acetate (CAS 79-20-9) Listed. Propane (CAS 74-98-6) Listed. Toluene (CAS 108-88-3) Listed.

US. Pennsylvania RTK - Hazardous Substances

Acetone (CAS 67-64-1) Listed. Butane (CAS 106-97-8) Listed. Heptane (CAS 142-82-5) Listed. Methyl acetate (CAS 79-20-9) Listed. Propane (CAS 74-98-6) Listed. Toluene (CAS 108-88-3) Listed.

US. Rhode Island RTK

Acetone (CAS 67-64-1) Listed. Butane (CAS 106-97-8) Listed. Propane (CAS 74-98-6) Toluene (CAS 108-88-3)

Inventory status

Country(s) or regionInventory nameOn inventory (yes/no)*CanadaDomestic Substances List (DSL)YesCanadaNon-Domestic Substances List (NDSL)NoUnited States & Puerto RicoToxic Substances Control Act (TSCA) InventoryYes*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

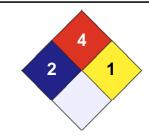
Listed.

Listed.

16. Other Information

| LEGEND | |
|----------|---|
| Severe | 4 |
| Serious | 3 |
| Moderate | 2 |
| Slight | 1 |
| Minimal | 0 |





Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. 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 date05-December-2014Effective date01-December-2014Expiry date01-December-2017

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

document.

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

Other information This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication

Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of

Chemicals (GHS).