

1. Product and Company Identification

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|--------------------------------------|--|
| Product identifier | Green Clean RTU (4186-24) |
| Other means of identification | Not available |
| Recommended use | Cleaner/Degreaser |
| Recommended restrictions | None known. |
| Manufacturer information | Nu-Calgon 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 | Not classified. | |
| Health hazards | Serious eye damage/eye irritation | Category 2 |
| Environmental hazards | Not classified. | |
| WHMIS 2015 defined hazards | Not classified | |
| Label elements | | |



| | | |
|--|--|--|
| Signal word | Warning | |
| Hazard statement | Causes serious eye irritation. | |
| Precautionary statement | | |
| Prevention | Wear eye protection/face protection. Wash thoroughly after handling. | |
| Response | 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. | |
| Storage | Store away from incompatible materials. | |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. | |
| WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC) | None known | |
| WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC) | None known | |
| Hazard(s) not otherwise classified (HNOC) | None known. | |
| Supplemental information | None. | |

3. Composition/Information on Ingredients

Mixture

| Chemical name | Common name and synonyms | CAS number | % |
|---|--------------------------|-------------|--------|
| (2-Methoxymethylethoxy) propanol | | 34590-94-8 | 0.1-1* |
| 2-Propanol, 1-butoxy- | | 5131-66-8 | 0.1-1* |
| Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy- | | 160875-66-1 | 1-5* |
| Sodium carbonate | | 497-19-8 | 1-5* |
| Sodium lauriminodipropionate | | 14960-06-6 | 1-5* |

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.

*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

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|---|---|
| Inhalation | If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. |
| Skin contact | Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists. |
| 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 | Rinse mouth. 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. |
| Most important symptoms/effects, acute and delayed | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | 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, skin and clothing. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children. |

5. Fire Fighting Measures

| | |
|--|---|
| Suitable extinguishing media | Dry chemical, CO2, water spray or regular foam. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | None known. |
| Special protective equipment and precautions for firefighters | Firefighters should wear full protective clothing including self-contained breathing apparatus. |
| Fire-fighting equipment/instructions | Use standard firefighting procedures and consider the hazards of other involved materials. |
| Specific methods | Move containers from fire area if you can do so without risk. |
| General fire hazards | No unusual fire or explosion hazards noted. |
| Hazardous combustion products | May include and are not limited to: Oxides of carbon. |

6. Accidental Release Measures

| | |
|--|--|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. 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 | Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Never return spills to original containers for re-use. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination. Prevent entry into waterways, sewer, basements or confined areas. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters. Contact local authorities in case of spillage to drain/aquatic environment. |

7. Handling and Storage

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|---|---|
| Precautions for safe handling | Wash thoroughly after handling. When using do not eat or drink. Use only with adequate ventilation. Avoid breathing vapors or mists of this product. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Do not empty into drains. Keep container tightly closed. |
| Conditions for safe storage, including any incompatibilities | Store in a closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children. Protect from freezing. |

8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components | Type | Value |
|---|------|----------------------------------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | STEL | 909 mg/m ³ |
| | | 150 ppm |
| | TWA | 606 mg/m ³ 100 ppm |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value |
|---|------|---------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | STEL | 150 ppm |
| | TWA | 100 ppm |

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

| Components | Type | Value |
|---|------|---------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | STEL | 150 ppm |
| | TWA | 100 ppm |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|---|------|---------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | STEL | 150 ppm |
| | TWA | 100 ppm |

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

| Components | Type | Value |
|---|------|----------------------------------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | STEL | 909 mg/m ³ |
| | | 150 ppm |
| | TWA | 606 mg/m ³ 100 ppm |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value |
|---|------|-----------------------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | PEL | 600 mg/m ³ |
| | | 100 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|---|------|---------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | STEL | 150 ppm |
| | TWA | 100 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|---|------|----------------------------------|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | STEL | 900 mg/m ³ |
| | | 150 ppm |
| | TWA | 600 mg/m ³ 100 ppm |

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

Exposure guidelines

Canada - Alberta OELs: Skin designation

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Can be absorbed through the skin.

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.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Rubber gloves. Confirm with a reputable supplier first.

Other

As required by employer code.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards

Not applicable.

General hygiene considerations

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

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|---|-----------------|
| Appearance | Clear |
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Dark green |
| Odor | Lemon |
| Odor threshold | Not available. |
| pH | 10.31 |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Pour point | Not available. |
| Specific gravity | Not available. |
| Partition coefficient (n-octanol/water) | Not available |
| Flash point | Not available |
| 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 | Not available |
| Vapor density | Not available |

| | |
|----------------------------------|----------------|
| Relative density | Not available. |
| Solubility(ies) | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 8.62 lbs/gal |
| VOC (Weight %) | 0.5 % |

10. Stability and Reactivity

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|---|--|
| 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 | Do not mix with other chemicals. Do not mix with chlorinated products. |
| Incompatible materials | Oxidizers. Acids. |
| Hazardous decomposition products | May include and are not limited to: Oxides of carbon. |

11. Toxicological Information

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|---|--|
| Routes of exposure | Eye, Skin contact, Inhalation, Ingestion. |
| Information on likely routes of exposure | |
| Ingestion | May cause stomach distress, nausea or vomiting. |
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |
| Symptoms related to the physical, chemical and toxicological characteristics | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |

Information on toxicological effects

Acute toxicity

| Components | Species | Test Results |
|---|---------------|--|
| (2-Methoxymethylethoxy) propanol (CAS 34590-94-8) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 19020 mg/kg, 24 Hours, ECHA > 19000 mg/kg, 24 Hours, ECHA 13000 - 14000 mg/kg, 24 Hours, ECHA 10100 mg/kg, 24 Hours, ECHA 9510 mg/kg, 24 Hours, ECHA 9500 mg/kg, 24 Hours, ECHA 10 ml/kg, 24 Hours, ECHA 9.5 g/kg, HSDB |
| | Rat | > 19020 mg/kg, Hours, ECHA > 20 ml/kg, Hours, ECHA |
| <i>Inhalation</i> | | |
| LC50 | Not available | |
| <i>Oral</i> | | |
| LD50 | Dog | 7.5 ml/kg, ECHA |
| | Rat | > 5000 mg/kg, ECHA 5230 mg/kg, ECHA 5180 mg/kg, ECHA 5.7 ml/kg, ECHA |

| Components | Species | Test Results |
|---|--|---|
| | | 5.4 ml/kg, ECHA/HSDB 5.4 g/kg, HSDB |
| 2-Propanol, 1-butoxy- (CAS 5131-66-8) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 3100 mg/kg 1400 mg/kg, 24 Hours 1.6 ml/kg, 24 Hours |
| | Rat | > 2000 mg/kg, 24 Hours |
| <i>Inhalation</i> | | |
| LC50 | Not available | |
| | Rat | > 651 ppm, 4 Hours |
| <i>Oral</i> | | |
| LD50 | Rat | > 2000 mg/kg 3300 mg/kg 2.8 ml/kg |
| Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy- (CAS 160875-66-1) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Not available | |
| <i>Inhalation</i> | | |
| LC50 | Not available | |
| <i>Oral</i> | | |
| LD50 | | > 500 mg/kg |
| Sodium carbonate (CAS 497-19-8) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 2000 mg/kg, ECHA |
| | Rat | > 2000 mg/kg, ECHA |
| <i>Inhalation</i> | | |
| LC50 | Guinea pig | 800 mg/m3, 2 Hours, ECHA |
| | Mouse | 1200 mg/m3, 2 Hours, ECHA |
| | Rat | 2300 mg/m3, 2 Hours, ECHA 2.3 mg/L, 2 Hours, HSDB |
| <i>Oral</i> | | |
| LD50 | Rat | 4090 mg/kg, RTECS 2800 mg/kg, ECHA, HSDB |
| Sodium lauriminodipropionate (CAS 14960-06-6) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 20 g/kg, 24 Hours, ECHA |
| | Rat | > 2000 mg/kg, 24 Hours, ECHA |
| <i>Inhalation</i> | | |
| LC50 | Not available | |
| <i>Oral</i> | | |
| LD50 | Rat | > 10000 mg/kg |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Exposure minutes | Not available. | |
| Erythema value | Not available. | |
| Oedema value | Not available. | |

| | |
|---|---|
| Serious eye damage/eye irritation | Causes serious eye irritation. |
| Corneal opacity value | Not available. |
| Iris lesion value | Not available. |
| Conjunctival reddening value | Not available. |
| Conjunctival oedema value | Not available. |
| Recover days | Not available. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not available. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Mutagenicity | Not classified. |
| Carcinogenicity | Not classified. |
| US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) | |
| Not listed. | |
| Reproductive toxicity | Not classified. |
| Teratogenicity | Not classified. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not available. |
| Chronic effects | Prolonged inhalation may be harmful. |

12. Ecological Information

| | | | |
|--------------------------------------|---|---------------------------------|------------------------------|
| Ecotoxicity | See below | | |
| Ecotoxicological data | | | |
| Components | | Species | Test Results |
| Sodium carbonate (CAS 497-19-8) | | | |
| Crustacea | EC50 | Daphnia | 265 mg/L, 48 Hours |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Ceriodaphnia dubia) | 156.6 - 298.9 mg/L, 48 hours |
| Fish | LC50 | Bluegill (Lepomis macrochirus) | 300 mg/L, 96 hours |
| Persistence and degradability | No data is available on the degradability of this product. | | |
| 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

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|--|--|
| Disposal instructions | Collect 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 | 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 Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

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.

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

2-Propanol, 1-butoxy- (CAS 5131-66-8) 1 TONNES

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)

The chemicals listed in Section 3 are on the TSCA Chemical Substances Inventory.

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 - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

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.

US state regulations

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

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Listed.

US - Minnesota Haz Subs: Listed substance

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Listed.

US - New Jersey RTK - Substances: Listed substance

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8)

US - Texas Effects Screening Levels: Listed substance

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8) Listed.

2-Propanol, 1-butoxy- (CAS 5131-66-8) Listed.

Poly(oxy-1,2-ethanediyl), Listed.

.alpha.-(2-propylheptyl)-.omega.-hydroxy- (CAS 160875-66-1)

Sodium carbonate (CAS 497-19-8) Listed.

Sodiumlaurimodipropionate(CAS14960-06-6) Listed.

US. Massachusetts RTK - Substance List

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8)

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

Not regulated.

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

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8)

US. Rhode Island RTK

(2-Methoxymethylethoxy) propanol (CAS 34590-94-8)

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

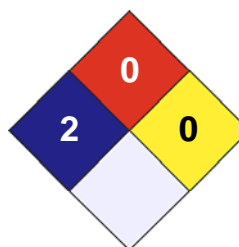
| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory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

| | |
|---------------------|-----|
| HEALTH | / 2 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | X |



Disclaimer

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

Issue date

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Version #

01

Effective date

02-August-2018

Prepared by

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

Other information

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