



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product name** SCRUBS (4366-87, 4366-24)  
**CAS #** Mixture  
**Product Use** Waterless Hand Cleaner Towels  
**Manufacturer** Nu-Calgon  
2008 Altom Court  
St. Louis, MO 63146 US  
Phone: 314-469-7000 / 800-554-5499  
Emergency Phone: 1-800-424-9300 (CHEMTREC)

## 2. Hazards Identification

**Emergency overview** CAUTION  
MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.  
Contact with liquid may cause skin sensitization.

**Potential short term health effects**

**Routes of exposure** Eye. Inhalation. Ingestion.

**Eyes** May cause irritation.

**Skin** Contact with skin can cause minor irritation and allergic reaction (sensitization) in some individuals following prolonged direct contact.

**Inhalation** Not a normal route of exposure. May cause respiratory irritation.

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

**Target organs** Eyes. Respiratory system.

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

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

**Potential environmental effects** See section 12.

## 3. Composition/Information on Ingredients

| Components       | CAS #      | Percent |
|------------------|------------|---------|
| Limonene         | 5989-27-5  | 3 - 7   |
| C12-15 PARETH-11 | 68131-39-5 | 1 - 5   |

## 4. First Aid Measures

**First aid procedures**

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

**Skin contact** Flush with water. In case of skin irritation, discontinue use of product.

**Inhalation** Not a normal route of exposure. If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

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

**Notes to physician** Symptoms may be delayed.

**General advice** Keep out of reach of children. Immediate medical attention is required. 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. If you feel unwell, seek medical advice (show the label where possible).

## 5. Fire Fighting Measures

**Flammable properties** Not flammable by WHMIS criteria.

|   |   |
|---|---|
| <b>Extinguishing media</b>                        |   |
| <b>Suitable extinguishing media</b>               | Dry chemical. Carbon dioxide. Water spray. Foam.  |
| <b>Unsuitable extinguishing media</b>             | Not available   |
| <b>Protection of firefighters</b>                 |   |
| <b>Specific hazards arising from the chemical</b> | Not available   |
| <b>Protective equipment for firefighters</b>      | Firefighters should wear full protective clothing including self contained breathing apparatus. |
| <b>Hazardous combustion products</b>              | May include and are not limited to: Oxides of carbon. Oxides of sulfur. Hydrogen sulfide.       |
| <b>Explosion data</b>                             |   |
| <b>Sensitivity to mechanical impact</b>           | Not available.  |
| <b>Sensitivity to static discharge</b>            | Not available.  |

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## 6. Accidental Release Measures

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|                                  |   |
|----------------------------------|---|
| <b>Personal precautions</b>      | Avoid contact with eyes. Avoid inhalation of vapour, fumes, dust and/or mist from the spilled material. |
| <b>Environmental precautions</b> | Do not discharge into lakes, streams, ponds or public waters.   |
| <b>Methods for containment</b>   | Prevent entry into waterways, sewers, basements or confined areas.                                      |
| <b>Methods for cleaning up</b>   | Pick up and discard towel.  |

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## 7. Handling and Storage

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|                 |   |
|-----------------|---|
| <b>Handling</b> | Avoid contact with eyes, lips and mouth.<br>Use good industrial hygiene practices in handling this material.<br>When using do not eat or drink.   |
| <b>Storage</b>  | Keep out of the reach of children.<br>Store in a closed container away from incompatible materials.<br>Keep away from heat, open flames or other sources of ignition.<br>Protect from freezing. |

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## 8. Exposure Controls/Personal Protection

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|                                       |  |
|---------------------------------------|--|
| <b>Exposure limits</b>                | Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH. |
| <b>Engineering controls</b>           | General ventilation normally adequate.   |
| <b>Personal protective equipment</b>  |  |
| <b>Eye/Face protection</b>            | Not normally required.   |
| <b>Hand protection</b>                | Not required   |
| <b>Skin and body protection</b>       | Not normally required.   |
| <b>Respiratory protection</b>         | Not normally required if good ventilation is maintained.   |
| <b>General hygiene considerations</b> | Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practices.       |

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## 9. Physical and Chemical Properties

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|                        |                          |
|------------------------|--------------------------|
| <b>Appearance</b>      | Liquid saturated on wipe |
| <b>Colour</b>          | Opaque white             |
| <b>Form</b>            | Towelettes.              |
| <b>Odour</b>           | Citrus                   |
| <b>Odour threshold</b> | Not available.           |
| <b>Physical state</b>  | Solid.                   |
| <b>pH</b>              | 9.8 ± 0.5                |
| <b>Freezing point</b>  | Not available.           |
| <b>Boiling point</b>   | 100 °C (212 °F) (liquid) |

|   |                        |
|---|------------------------|
| <b>Pour point</b>                                     | Not available.         |
| <b>Evaporation rate</b>                               | Not available          |
| <b>Flash point</b>                                    | None to boiling (PMCC) |
| <b>Auto-ignition temperature</b>                      | Not available          |
| <b>Flammability Limits in Air, Upper, % by Volume</b> | Not available.         |
| <b>Flammability Limits in Air, Lower, % by Volume</b> | Not available          |
| <b>Heat of combustion</b>                             | Not available.         |
| <b>Vapour pressure</b>                                | Not available          |
| <b>Vapour density</b>                                 | > 1                    |
| <b>Specific gravity</b>                               | 0.986 (Liquid)         |
| <b>Partition coefficient (n-octanol/water)</b>        | Not available.         |
| <b>Solubility (Water)</b>                             | Wipe is not soluble    |
| <b>Relative density</b>                               | Not available.         |
| <b>Viscosity</b>                                      | Not available.         |
| <b>VOC</b>  | < 8                    |
| <b>Percent volatile</b>                               | Not available          |

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### 10. Stability and Reactivity

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|   |  |
|---|--|
| <b>Reactivity</b>                         | This product may react with strong oxidising agents.                                       |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerisation does not occur.   |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.   |
| <b>Conditions to avoid</b>                | Do not mix with other chemicals.   |
| <b>Incompatible materials</b>             | Acids. Oxidizers. Reducing Agents.   |
| <b>Hazardous decomposition products</b>   | May include and are not limited to: Oxides of carbon. Oxides of sulfur. Hydrogen sulphide. |

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### 11. Toxicological Information

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#### Toxicological data

| Components                        | Species       | Test results |
|-----------------------------------|---------------|--------------|
| C12-15 PARETH-11 (CAS 68131-39-5) |               |              |
| <b>Acute</b>                      |               |              |
| <i>Dermal</i>                     |               |              |
| LD50                              | Rabbit        | 2500 mg/kg   |
|                                   |               | 2000 mg/kg   |
| <i>Inhalation</i>                 |               |              |
| LC50                              | Not available |              |
| <i>Oral</i>                       |               |              |
| LD50                              | Rat           | 1600 mg/kg   |
| Limonene (CAS 5989-27-5)          |               |              |
| <b>Acute</b>                      |               |              |
| <i>Dermal</i>                     |               |              |
| LD50                              | Rabbit        | > 5000 mg/kg |
| <i>Inhalation</i>                 |               |              |
| LC50                              | Not available |              |
| <i>Oral</i>                       |               |              |
| LD50                              | Mouse         | 5600 mg/kg   |
|                                   | Rat           | 4400 mg/kg   |

## Effects of acute exposure

|                        |  |
|------------------------|--|
| <b>Eye contact</b>     | May cause irritation.  |
| <b>Skin contact</b>    | Contact with skin can cause minor irritation and allergic reaction (sensitization) in some individuals following prolonged direct contact. |
| <b>Inhalation</b>      | Not a normal route of exposure. May cause respiratory irritation.  |
| <b>Ingestion</b>       | Not a normal route of exposure. May cause stomach distress, nausea or vomiting.  |
| <b>Sensitisation</b>   | Non-hazardous by WHMIS criteria.   |
| <b>Chronic effects</b> | Non-hazardous by WHMIS criteria.   |
| <b>Carcinogenicity</b> | Non-hazardous by WHMIS criteria.   |

### IARC Monographs. Overall Evaluation of Carcinogenicity

Limonene (CAS 5989-27-5)

Volume 73 - 3 Not classifiable as to carcinogenicity to humans.

|   |                                  |
|---|----------------------------------|
| <b>Mutagenicity</b>                                 | Non-hazardous by WHMIS criteria. |
| <b>Reproductive effects</b>                         | Non-hazardous by WHMIS criteria. |
| <b>Teratogenicity</b>                               | Non-hazardous by WHMIS criteria. |
| <b>Name of Toxicologically Synergistic Products</b> | Not available.                   |

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## 12. Ecological Information

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

### Ecotoxicological data

#### Components

C12-15 PARETH-11 (CAS 68131-39-5)

#### Aquatic

|           |      | Species                               | Test results               |
|-----------|------|---------------------------------------|----------------------------|
| Crustacea | EC50 | Water flea (Ceriodaphnia dubia)       | 0.37 - 0.43 mg/l, 48 hours |
| Fish      | LC50 | Channel catfish (Ictalurus punctatus) | 1.04 - 1.39 mg/l, 96 hours |

Limonene (CAS 5989-27-5)

#### Aquatic

|           |      |                                      |                              |
|-----------|------|--------------------------------------|------------------------------|
| Crustacea | EC50 | Water flea (Daphnia pulex)           | 69.6 mg/l, 48 hours          |
| Fish      | LC50 | Fathead minnow (Pimephales promelas) | 0.619 - 0.796 mg/l, 96 hours |

**Persistence and degradability** Not available.

**Bioaccumulation/accumulation** Not available

**Mobility in environmental media** Not available.

**Environmental effects** Not available.

**Aquatic toxicity** Not available.

#### Partition coefficient

Limonene 4.232

**Chemical fate information** Not available.

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## 13. Disposal Considerations

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**Disposal instructions** Follow container label directions carefully. Do not reuse towel. Dispose of used towel in trash. Do not flush in toilet. Do not reuse empty container. Wrap container and put in trash collection. Review federal, state/provincial, and local government requirements prior to disposal. Discard with solid waste.

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

**Contaminated packaging** Not available

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## 14. Transport Information

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### 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 Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

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

Limonene (CAS 5989-27-5) 1 TONNES

**Canada WHMIS Ingredient Disclosure: Threshold limits**

Limonene (CAS 5989-27-5) 1 %

**WHMIS Classification** Exempt - Notified cosmetic under the Food & Drugs Act

**Inventory status**

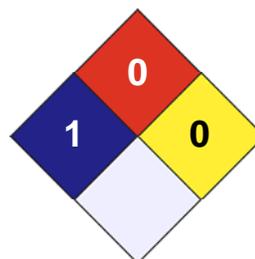
| Country(s) or region | Inventory Name                      | On Inventory (Yes/No)* |
|----------------------|-------------------------------------|------------------------|
| Canada               | Domestic Substances List (DSL)      | Yes                    |
| Canada               | Non-Domestic Substances List (NDSL) | No                     |

\*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 |

|                            |     |
|----------------------------|-----|
| <b>HEALTH</b>              | * 1 |
| <b>FLAMMABILITY</b>        | 0   |
| <b>PHYSICAL HAZARD</b>     | 0   |
| <b>PERSONAL PROTECTION</b> |     |



**Disclaimer**

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

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