1. **PRODUCT AND COMPANY IDENTIFICATION**

**Manufacturer**
Titan Laboratories  
2935 Irving Blvd.  
#209  
Dallas, TX 75247

**Contact:**  
Titan Laboratories  
**Phone:** 800-475-3300 // 214-638-1200  
**Email:** info@titanlabs.net  
**Web:** www.titanlabs.net

**Product Name:** Hand Cleaner 38™  
**Revision Date:** 12/12/2014  
**Version:** 2.00  
**SDS Number:** 94  
**Common Name:** Abrasive Cleaner  
**CAS Number:** MIXTURE  
**Chemical Family:** Cleaner  
**Chemical Formula:** *** PROPRIETARY ***  
**Emergency Phone:** +1-800-255-3924

2. **HAZARDS IDENTIFICATION**

**NFPA:**  
**HMIS III:**

- **Health:** 1, Fire = 2, Reactivity = 0  
- **H*1/F2/PH0**

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Physical Hazards</td>
<td>0</td>
</tr>
</tbody>
</table>

**PERSONAL PROTECTION INDEX**

- A  
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Contact your supervisor or S.O.P for “SPECIAL” handling conditions.
GHS Signal Word:
DANGER

GHS Hazard Pictograms:

GHS Classifications:
- Physical, Flammable Liquids, 4
- Health, Acute toxicity, 4 Oral
- Health, Aspiration hazard, 1
- Health, Skin corrosion/irritation, 2
- Health, Serious Eye Damage/Eye Irritation, 2 A
- Health, Carcinogenicity, 2

GHS Phrases:
- H227 - Combustible liquid
- H302 - Harmful if swallowed
- H304 - May be fatal if swallowed and enters airways
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H351 - Suspected of causing cancer

GHS Precautionary Statements:
- P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P262 - Do not get in eyes, on skin, or on clothing.
- P264 - Wash skin thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302+352 - IF ON SKIN: Wash with soap and water.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P321 - Specific treatment (see supplemental first aid instructions on this label).
- P332+313 - If skin irritation occurs: Get medical advice/attention.
- P337+313 - If eye irritation persists: Get medical advice/attention.
- P362 - Take off contaminated clothing and wash before reuse.
- P370+378 - In case of fire: Use water spray, water fog, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
- P403+235 - Store in a well ventilated place. Keep cool.
- P412 - Do not expose to temperatures exceeding 50 °C/122 °F.
- P501 - Dispose of contents/container to an approved waste disposal plant.

Additional Hazard Statements (EU):
- EUH066 - Repeated exposure may cause skin dryness or cracking.
### COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Cas #</th>
<th>Percentage</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-96-7</td>
<td>60-80%</td>
<td>Solvent naphtha, petroleum, heavy aliph.</td>
</tr>
<tr>
<td>None</td>
<td>5-10%</td>
<td>Trade Secret*</td>
</tr>
<tr>
<td>112-34-5</td>
<td>&lt;5%</td>
<td>Ethanol, 2-(2-butoxyethoxy)-</td>
</tr>
<tr>
<td>14808-60-7</td>
<td>&lt;5%</td>
<td>Silica, crystalline quartz</td>
</tr>
<tr>
<td>N/A</td>
<td>0-5</td>
<td>Proprietary, non-hazardous, non-regulated</td>
</tr>
</tbody>
</table>

*The specific chemical identities of the ingredients of this mixture labeled as "Trade Secret" are considered to be proprietary and are withheld in accordance with the provisions of 29CFR1910.1200 Sect. (i) Trade Secrets.

### FIRST AID MEASURES

**Inhalation:**
Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.

**Skin Contact:**
Take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening develops and/or persists, obtain medical attention.

**Eye Contact:**
Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses is present and easy to do so. Get immediate medical attention.

**Ingestion:**
Rinse mouth with water. Do NOT induce vomiting unless instructed to do so. Material can enter lungs (aspiration hazard) during swallowing or vomiting resulting in lung inflammation or other lung injury. Never give anything by mouth to an unconscious person. Get immediate medical attention.

**Most important symptoms and effects, both acute and delayed:**
The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11. Inhalation of high concentrations of this material, as could occur in enclosed spaces or improper use, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. The material has as aspiration hazard. This material has as aspiration hazard. Any potential danger from aspiration must be weighed against possible oral toxicity when determining whether to induce vomiting. Consider activated charcoal and/or gastric lavage. Any aspirated material may contain Silica, crystalline quartz, which may contribute to lung damage due to aspiration. Long term exposure can cause silicosis.

**Indication of any immediate medical attention and special treatment needed:**
No data available.
5 FIRE FIGHTING MEASURES

Flammability: Combustible Liquid Class IIIA
Flash Point: > 150 °F (65.6 °C)
Flash Point Method: (PMCC)
Burning Rate: No data available
Autoignition Temp: No data available
LEL: DNA
UEL: DNA

Extinguishing Media:
Water Spray
Water Fog
Carbon Dioxide
Alcohol-Resistant Foam
Dry Chemical

Special Hazards Arising From the Substance or Mixture:
Carbon Oxides
Hydrocarbon particulate
Silicon Oxides

Advice for Firefighters:
Firefighters should wear full-face, positive-pressure respirators.

Further Information:
If incinerated, may release toxic fumes.
Use water spray to cool unopened containers.
Do NOT use high volume water jet to extinguish fire, as the force of the water jet may cause fire to spread.
See Section 7 for more information on safe handling.
See Section 8 for more information on personal protection equipment.
See Section 13 for disposal information.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Use personal protective equipment.
Keep from contacting skin or eyes.
Avoid breathing vapors, mist or gas.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

Environmental Precautions:
Prevent further release (leakage/spillage) if safe to do so.
Do not allow product to enter drains.
Do not allow to drain to environment.

Methods and Materials for Containments and Cleaning Up:
Ensure adequate ventilation.
Contain spillage and absorb with liquid-binding material (sand, diatomite, universal binders, vermiculite) and placed in container for disposal.
Spill may also be diluted with equal volume of water and absorbed (as above) or collect with an electrically-protected vacuum cleaner or by wet-brushing. Collected waste should then be placed in container for disposal. Dispose of contaminated material according to Section 13.

Reference to Other Sections:
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on proper disposal.

7 HANDLING AND STORAGE

Handling Precautions:
- Avoid breathing vapors or mist.
- Avoid contact with eyes, skin, or clothing.
- Keep containers closed when not in use.
- Do not expose containers to open flame, excessive heat, or direct sunlight.
- Keep away from sources of ignition.
- Do not smoke while using material.
- Do not puncture or drop containers.
- Handle with care and avoid spillage on the floor (slippage).
- Keep material out of reach of children.
- Keep material away from incompatible materials.
- Wash thoroughly after handling.

Storage Requirements:
- Keep container tightly closed.
- Avoid inhalation of vapors or mist upon opening container.
- Store in a well-ventilated place.
- Do not store at temperatures exceeding 50 °C/122 °F.
- Do not store in direct sunlight.
- Store away from strong acids, strong bases, strong oxidizing agents, strong reducing agents, Amines, reactive metals (Zinc & Aluminum) and their alloys (Brass), Alkali metals, Alkali salts, liquid Chlorine, Chlorates, Hydrofluoric acid, Hydrogen Fluoride, Fluorine, Fluorides and other Halogens, Chlorine Trifluoride, and Manganese Trioxide.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:
All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

Personal Protective Equip:
- Eye/face protection:
  When using material use safety goggles, gloves and apron according to HMIS PP, C. A vapor respirator according to HMIS PP, U is also strongly recommended if working with material in poorly ventilated spaces. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

  Skin protection:
  Handle with gloves made from PVC, butyl-rubber, neoprene or nitrile. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

  Body Protection:
Chemically resistant gloves, apron and safety goggles are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory protection:
Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds.

Control of environmental exposure:
Prevent leakage or spillage if safe to do so. Do not let material enter drains.

Components with workplace control parameters:

Component(s): Solvent naphtha, petroleum, heavy aliph.; Silica, crystalline quartz
CAS No(s): 64742-96-7; 14808-60-7
USA NIOSH (TWA/REL): 100 mg/m³
USA ACGIH (TWA/TLV): 0.025 mg/m³ (Silica, crystalline quartz - inhalation and/or aspiration)
USA ACGIH (TWA/TLV): 200 mg/m³
USA OSHA - Table Z-1 Limits for Air Contaminants (TWA): 1,600 mg/m³

Biological occupational exposure limits:
Contains no substances with biological occupational exposure limits values.
10 STABILITY AND REACTIVITY

Stability: Product is stable under normal conditions.

Conditions to Avoid: Incompatibilities, flames, ignition sources.

Materials to Avoid: Strong acids, strong bases, strong oxidizing agents, strong reducing agents, Amines, reactive metals (Zinc & Aluminum) and their alloys (Brass), Alkali metals, Alkali salts, liquid Chlorine, Chlorates, Hydrofluoric acid, Hydrogen Fluoride, Fluorine, Fluorides and other Halogens, Chlorine Trifluoride, and Manganese Trioxide.

Hazardous Decomposition: Carbon Oxides, Hydrocarbon particulate and Silicon Oxides.

Hazardous Polymerization: Will not occur.

11 TOXICOLOGICAL INFORMATION

Component(s): Solvent naphtha, petroleum, heavy aliph.; Trade Secret; Ethanol, 2-(2-butoxyethoxy)-; Silica, crystalline quartz

CAS No(s): 64742-96-7; None; 112-34-5; 14808-60-7

Acute Toxicity:

LD50 Oral - Rat: 500 mg/kg
LD50 Oral - Rabbit: 2,835 mg/kg
LD50 Dermal - Rat: > 2,000 mg/kg
LD50 Dermal - Rabbit: 2,764 mg/kg
LC50 Inhalation - Rat: > 5 mg/l (4 h)

Skin Corrosion/Irritation: Rabbit skin - Skin irritation.

Serious Eye Damage/Eye Irritation: Rabbit eyes - Severe eye irritation.

Respiratory or Skin Sensitization: May cause respiratory irritation. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ Cell Mutagenicity: No data available.

Carcinogenicity:

This product is or contains components that are classifiable as to their carcinogenicity based on their IARC, ACGIH, NTP, or OSHA classification.

IARC: 1 - Group 1: Carcinogenic to humans (Silica, crystalline quartz).
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: Known to be a human carcinogen (Silica, crystalline quartz).
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity: NOEL Teratogenicity Oral - Rat: 50 mg/kg - Effects on development were observed.

Specific Target Organ Toxicity - Single Exposure: No data available.

Specific Target Organ Toxicity - Repeated Exposure: May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard: My be fatal if swallowed and enters airways.

Additional Information:
Component: Solvent naphtha, petroleum, heavy aliph.; RTECS: OA5500000
Component: Silica, crystalline quartz; RTECS: VV7330000
Component: Ethanol, 2-(2-butoxyethoxy)-; RTECS: KJ9100000

ECOLOGICAL INFORMATION

Component(s): Solvent naphtha, petroleum, heavy aliph.; Trade Secret; Ethanol, 2-(2-butoxyethoxy)-; Silica, crystalline quartz
CAS No(s): 64742-96-7; None; 112-34-5; 14808-60-7

Toxicity:

Toxicity to fish:
LC50 - Lepomis macrochirus (Bluegill Sunfish): 1.0 mg/l (96 h)
Mortality LOEC - Pimephales promelas (Fathead Minnow): 2.0 mg/l (144 h)
Mortality NOEC - Pimephales promelas (Fathead Minnow): 1.8 mg/l (144 h)

Toxicity to daphnia and other aquatic invertebrates:
EC50 - Daphnia magna (Water Flea): 12.2 - 17.0 mg/l (48 h)
Mortality NOEC - Daphnia magna (Water Flea): 10.0 mg/l (144 h)
Mortality LOEC - Daphnia magna (Water Flea): 20.0 mg/l (144 h)

Toxicity to algae:
Growth Inhibition LOEC - Pseudokirchneriella subcapitata: 16.0 mg/l (96 h)
Growth Inhibition NOEC - Pseudokirchneriella subcapitata: 8.0 mg/l (96 h)
Static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus): > 100 mg/l (96 h)

Persistence and Degradability:
Not readily biodegradable.

Bioaccumulative potential:
Most of the hydrocarbon blocks comprising Naphtha Solvents have a LogKOW > 3, indicating that these constituents have a potential to bioaccumulate.

Mobility in Soil:
No data available.

Results of PBT and vPvB assessment:
Not required/conducted.

Other Adverse Effects:
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
13 DISPOSAL CONSIDERATIONS

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

14 TRANSPORT INFORMATION

DOT (US)
Non-regulated material, liquid

IMDG
Non-regulated material, liquid

IATA
Non-regulated material, liquid

15 REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*Solvent naphtha, petroleum, heavy aliph. (64742967 60-80%) MASS, NJHS, PA, SARA311/312, TSCA

*Trade Secret (None 5-10%) MASS, NJHS, PA, SARA311/312, TSCA

*Ethanol, 2-(2-butoxyethoxy)- (112345 <5%) HAP, NJHS, PA, SARA311/312, SARA313, TSCA

*Silica, crystalline quartz (14808607 <5%) NJHS, MASS, NRC, OSHAWAC, PA, PROP65, SARA311/312, TSCA, TXAIR

REGULATORY KEY DESCRIPTIONS

HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
NRC = Nationally Recognized Carcinogens
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
PROP65 = CA Prop 65
SARA311/312 = SARA 311/312 Toxic Chemicals
SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level
| 16 | OTHER INFORMATION |

**Disclaimer:**

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that Titan Laboratories believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of Titan Laboratories’ control, Titan Laboratories makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

**Preparation Information:**

GHS Conversion Services  
www.ghsconversionservices.com  
(669) 236-0304