SAFETY DATA SHEET
HD Orange Hand Cleaner

Section 1. Identification
Product identifier : HD Orange Hand Cleaner
Product code : 792
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th>Identified uses</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soap. This product is a soap regulated by the Consumer Product Safety Commission that is safe for consumers and other users under normal and reasonably foreseeable use. These requirements differ from the classification criteria and hazard information required for safety data sheet. This SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposure such as large spills.</td>
<td></td>
</tr>
</tbody>
</table>

Uses advised against

<table>
<thead>
<tr>
<th>Uses advised against</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Industrial and Institutional Use Only</td>
<td>-</td>
</tr>
</tbody>
</table>

Supplier's details
Betco Corporation
1690 Huron Church Road, Suite 169
Windsor ON N9C0AC CA

400 Van Camp Road
Bowling Green, OH 43402 US
www.betco.com
888-462-3826

Emergency telephone number (with hours of operation)
Chemtrec (800) 424-9300 24 hour

Section 2. Hazard identification
Classification of the substance or mixture
RESPIRATORY SENSITIZATION - Category 1

GHS label elements
Hazard pictograms :

Signal word : Danger
Hazard statements : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Precautionary statements
Prevention : Wear respiratory protection. Avoid breathing vapor.
Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician.
Storage : Not applicable.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>10 - 20</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>5 - 10</td>
<td>64742-47-8</td>
</tr>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>0.1 - 1</td>
<td>5989-27-5</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : Adverse symptoms may include the following: wheezing and breathing difficulties asthma
Skin contact : No specific data.
Ingestion : No specific data.
Section 4. First-aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to physician:
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments:
No specific treatment.

Protection of first-aiders:
No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media:
Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical:
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products:
Decomposition products may include the following materials: metal oxide/oxides

Special protective actions for fire-fighters:
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Environmental precautions:
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up:
Small spill:
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

For non-emergency personnel:
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Date of issue/Date of revision: 12/19/2019
Date of previous issue: 4/25/2019
Version: 1.03
HD Orange Hand Cleaner

Section 6. Accidental release measures

**Large spill**

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures**

Put on appropriate personal protective equipment (see Section 8). Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>CA British Columbia Provincial (Canada, 6/2017). TWA: 0.025 mg/m³ 8 hours. Form:</td>
</tr>
<tr>
<td></td>
<td>Respirable</td>
</tr>
<tr>
<td></td>
<td>CA Quebec Provincial (Canada, 1/2014). TWAEV: 0.1 mg/m³ 8 hours. Form: Respirable</td>
</tr>
<tr>
<td></td>
<td>dust.</td>
</tr>
<tr>
<td></td>
<td>CA Ontario Provincial (Canada, 1/2018). TWA: 0.1 mg/m³ 8 hours. Form: Respirable</td>
</tr>
<tr>
<td></td>
<td>fraction.</td>
</tr>
<tr>
<td></td>
<td>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 0.025 mg/m³ 8 hours. Form:</td>
</tr>
<tr>
<td></td>
<td>Respirable particulate.</td>
</tr>
<tr>
<td></td>
<td>CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m³ 8 hours. Form:</td>
</tr>
<tr>
<td></td>
<td>respirable fraction.</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>CA British Columbia Provincial (Canada, 7/2018). Absorbed through skin. TWA:</td>
</tr>
<tr>
<td></td>
<td>200 mg/m³, (as total hydrocarbon.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision : 12/19/2019    Date of previous issue : 4/25/2019    Version : 1.03
Section 8. Exposure controls/personal protection

(R)-p-mentha-1,8-diene

vapour) 8 hours.
CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.
8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.
CA Ontario Provincial (Canada, 1/2018). Absorbed through skin.
TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.
AIHA WEEL (United States, 7/2018).
TWA: 30 ppm 8 hours.

Appropriate engineering controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Section 9. Physical and chemical properties

**Appearance**
- **Physical state**: Liquid.
- **Color**: White. Opaque.
- **Odor**: Orange.
- **Odor threshold**: Not available.
- **pH**: 7 to 9
- **Melting point**: Not available.
- **Boiling point**: Not available.
- **Flash point**: Closed cup: >150°C (>302°F) [Product does not sustain combustion.]
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Solubility**: Partially soluble in the following materials: cold water and hot water.
- **Solubility in water**: Not available.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Not available.
- **Flow time (ISO 2431)**: Not available.

**Section 10. Stability and reactivity**

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

**Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**: No specific data.

**Incompatible materials**: Not available.

**Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Section 11. Toxicological information**

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4400 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 10 Percent</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)

Name: Distillates (petroleum), hydrotreated light
Category: Category 3
Route of exposure: Not applicable
Target organs: Narcotic effects

Specific target organ toxicity (repeated exposure)

Name: Quartz
Category: Category 1
Route of exposure: Not determined
Target organs: Not determined

Aspiration hazard

Name: Distillates (petroleum), hydrotreated light
Result: ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal.
Routes of entry not anticipated: Inhalation.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data.
Inhalation: Adverse symptoms may include the following: wheezing and breathing difficulties asthma
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: Not available.
Potential delayed effects: Not available.
Section 11. Toxicological information

Long term exposure
Potential immediate effects : Not available.
Potential delayed effects : Not available.
Potential chronic health effects
Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates
Not available.

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated light (R)-p-mentha-1,8-diene</td>
<td>Acute LC50 2200 µg/l Fresh water&lt;br&gt;Acute EC50 421 µg/l Fresh water&lt;br&gt;Acute EC50 688 µg/l Fresh water</td>
<td>Fish - Lepomis macrochirus&lt;br&gt;Daphnia - Daphnia magna&lt;br&gt;Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>4 days&lt;br&gt;48 hours&lt;br&gt;96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
Not available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>4.38</td>
<td>-</td>
<td>high</td>
</tr>
</tbody>
</table>

Mobility in soil
Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.
Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>TDG Classification</th>
<th>DOT Classification</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
</table>

- UN proper shipping name
- Transport hazard class(es)
- Packing group
- Environmental hazards

Special precautions for user: **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not available.

Section 15. Regulatory information

Canadian lists
- **Canadian NPRI**: The following components are listed: Hydro-treated light distillate
- **CEPA Toxic substances**: None of the components are listed.

International regulations
- **Chemical Weapon Convention List Schedules I, II & III Chemicals**: Not listed.
- **Montreal Protocol**: Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**: Not listed.
- **UNECE Aarhus Protocol on POPs and Heavy Metals**: Not listed.
Section 15. Regulatory information

Not listed.

Inventory list

- **Australia**: Not determined.
- **Canada**: Not determined.
- **China**: Not determined.
- **Europe**: Not determined.
- **Japan**: Japan inventory (ENCS): Not determined.
  Japan inventory (ISHL): Not determined.
- **Malaysia**: Not determined.
- **New Zealand**: Not determined.
- **Philippines**: Not determined.
- **Republic of Korea**: All components are listed or exempted.
- **Taiwan**: Not determined.
- **Thailand**: Not determined.
- **Turkey**: Not determined.
- **United States**: All components are listed or exempted.
- **Viet Nam**: Not determined.

Section 16. Other information

**History**

- **Date of printing**: 12/19/2019
- **Date of issue/Date of revision**: 12/19/2019
- **Date of previous issue**: 4/25/2019
- **Version**: 1.03

**Key to abbreviations**

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations
- HPR = Hazardous Products Regulations

**Procedure used to derive the classification**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPIRATORY SENSITIZATION - Category 1</td>
<td>Expert judgment</td>
</tr>
</tbody>
</table>

**References**

- Not available.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.