

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

## 1 Identification

- **Product identifier**
- **Trade name:** Mighty Orange 25
- **Article number:** 1635 PK
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Power Kleen Corporation  
101 South Bayview Blvd.  
OLDSMAR, FL 34677  
USA
- **Information department:** Product Safety Department
- **Emergency telephone number:** ChemTel Inc. (800) 255-3924 Intl. +01 (813) 248-0585



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

d-Limonene (Citrus Terpenes)

- **Hazard statements**

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

(Contd. on page 2)

USA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 1)

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

· **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 2

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

94266-47-4	d-Limonene (Citrus Terpenes)	50-100%
66455-15-0	C10-12 6 Mole Linear Alcohol Ethoxylate	2.5-10%

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Do not induce vomiting; immediately call for medical help.

A person vomiting while lying on their back should be turned onto their side.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 2)

- **Most important symptoms and effects, both acute and delayed**
  - Nausea
  - Asthma attacks
  - Allergic reactions
  - Breathing difficulty
  - Gastric or intestinal disorders
- **Danger** Danger of pulmonary edema.
- **Indication of any immediate medical attention and special treatment needed**
  - If swallowed or in case of vomiting, danger of entering the lungs.
  - Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
  - Do not allow product to reach sewage system or any water course.
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Dilute with plenty of water.
  - Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents
- **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 disposal information.

## 7 Handling and storage

- **Precautions for safe handling**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
  - Protect from heat.
  - Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Provide solvent resistant, sealed floor.
- **Information about storage in one common storage facility:**
  - Store away from oxidizing agents.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 3)

Store away from foodstuffs.

- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
Neoprene gloves  
Nitrile rubber, NBR  
Fluorocarbon rubber (Viton)  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Not suitable are gloves made of the following materials:** Leather gloves
- **Eye protection:**



Tightly sealed goggles

(Contd. on page 5)

USA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 4)

· **Body protection:** Solvent resistant protective clothing

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Citrus
<b>Odour threshold:</b>	Not determined.

· **pH-value at 20 °C (68 °F):** 6· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

· **Flash point:** 60 °C (140 °F)· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:****Decomposition temperature:** Not determined.· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Not determined.· **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

· **Vapor pressure:** Not determined.· **Density at 20 °C (68 °F):** 0.8 g/cm<sup>3</sup> (6.676 lbs/gal)· **Relative density** Not determined.· **Vapour density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with****Water:** Fully miscible.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.

· **Solvent content:****Organic solvents:** 0.0 %**Water:** 34.0 %**VOC content:** 34.0 %· **Other information** No further relevant information available.

USA

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 5)

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**  
Reacts with oxidizing agents.  
Flammable.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
Hydrocarbons  
Carbon monoxide and carbon dioxide

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:**  
Sensitization possible through inhalation.  
Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant
- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>
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1
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· <b>NTP (National Toxicology Program)</b>
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None of the ingredients is listed.
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· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
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None of the ingredients is listed.
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## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms  
Water hazard class 2 (Self-assessment): hazardous for water

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 6)

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· **UN-Number**

· **DOT**

· **IMDG, IATA**

Not regulated

UN1993

· **UN proper shipping name**

· **DOT**

· **IMDG**

· **IATA**

Not regulated

FLAMMABLE LIQUID, N.O.S. (d-Limonene (Citrus Terpenes)),  
MARINE POLLUTANT

FLAMMABLE LIQUID, N.O.S. (d-Limonene (Citrus Terpenes))

· **Transport hazard class(es)**

· **DOT**

Not applicable

· **IMDG**



· **Class**

3 Flammable liquids

· **Label**

3

· **IATA**



· **Class**

3 Flammable liquids

· **Label**

3

· **Packing group**

· **DOT**

· **IMDG, IATA**

Not applicable

III

(Contd. on page 8)

USA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 7)

· <b>Environmental hazards:</b>	Product contains environmentally hazardous substances: <i>d-Limonene (Citrus Terpenes)</i>
· <b>Marine pollutant:</b>	Yes Symbol (fish and tree)
· <b>Special precautions for user</b>	
· <b>Danger code (Kemler):</b>	30
· <b>EMS Number:</b>	F-E,S-E
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN1993, Flammable liquids, n.o.s. ( <i>d-Limonene (Citrus Terpenes)</i> ), ENVIRONMENTALLY HAZARDOUS, 3, III

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· <b>Section 355 (extremely hazardous substances):</b>
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None of the ingredients is listed.
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· <b>Section 313 (Specific toxic chemical listings):</b>
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None of the ingredients is listed.
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· <b>TSCA (Toxic Substances Control Act):</b>
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66455-15-0	C10-12 6 Mole Linear Alcohol Ethoxylate
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7732-18-5	water, distilled, conductivity or of similar purity
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· <b>Proposition 65</b>
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· <b>Chemicals known to cause cancer:</b>
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None of the ingredients is listed.
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· <b>Chemicals known to cause reproductive toxicity for females:</b>
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None of the ingredients is listed.
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· <b>Chemicals known to cause reproductive toxicity for males:</b>
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None of the ingredients is listed.
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· <b>Chemicals known to cause developmental toxicity:</b>
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None of the ingredients is listed.
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· <b>Carcinogenic categories</b>
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· <b>EPA (Environmental Protection Agency)</b>
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None of the ingredients is listed.
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· <b>TLV (Threshold Limit Value established by ACGIH)</b>
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None of the ingredients is listed.
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(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/03/2014

Reviewed on 01/27/2014

Trade name: **Mighty Orange 25**

(Contd. of page 8)

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02    GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*d-Limonene (Citrus Terpenes)*

· **Hazard statements**

*Flammable liquid and vapour.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*May cause an allergic skin reaction.*

*May be fatal if swallowed and enters airways.*

· **Precautionary statements**

*If medical advice is needed, have product container or label at hand.*

*Keep out of reach of children.*

*Read label before use.*

*Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*

*Use explosion-proof electrical/ventilating/lighting/equipment.*

*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing MSDS:** Environment protection department.

· **Date of preparation / last revision**

11/03/2014 / -

01/27/2014

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*Flam. Liq. 3: Flammable liquids, Hazard Category 3*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

(Contd. on page 10)

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 11/03/2014

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**Trade name: Mighty Orange 25***Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A**Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Asp. Tox. 1: Aspiration hazard, Hazard Category 1*

(Contd. of page 9)

USA