

ZEP BIG ORANGE 55GL

Version 2.4

Revision Date 08/16/2017

Print Date 11/02/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP BIG ORANGE 55GL

Material number : 00000000000041585

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers**For SDS Information** : Compliance Services 1-877-428-9937**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded**For a Transportation Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616**Recommended use of the chemical and restrictions on use**

Recommended use : Degreaser

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

| | |
|------------|---------------|
| Appearance | liquid |
| Colour | clear, orange |
| Odour | strong |

GHS ClassificationFlammable liquids : Category 3
Skin irritation : Category 2
Eye irritation : Category 2A
Skin sensitisation : Category 1
Aspiration hazard : Category 1**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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Precautionary statements : **Prevention:**
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves/ eye protection/ face protection.

Response:
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P331 Do NOT induce vomiting.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
 P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:
 Dispose of contents/container in accordance with local regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical name | CAS-No. | Concentration [%] |
|-------------------------------------|-------------|-------------------|
| d-limonene | 5989-27-5 | >= 70 - < 90 |
| Nonylphenol, ethoxylated | 9016-45-9 | >= 1 - < 5 |
| p-mentha-1,4-diene | 99-85-4 | >= 1 - < 5 |
| 4-Nonylphenol branched, ethoxylated | 127087-87-0 | >= 1 - < 5 |
| linalool | 78-70-6 | >= 1 - < 5 |
| 7-methyl-3-methyleneocta-1,6-diene | 123-35-3 | >= 1 - < 5 |

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

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|---|---|
| General advice | : Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended. |
| If inhaled | : If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician. |
| In case of skin contact | : In case of contact, immediately flush skin with soap and plenty of water. If skin irritation persists, call a physician. |
| In case of eye contact | : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. |
| If swallowed | : Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. DO NOT induce vomiting unless directed to do so by a physician or poison control center. |
| Most important symptoms and effects, both acute and delayed | : Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Causes skin irritation. Causes serious eye irritation. Review section 2 of SDS to see all potential hazards. |
| Notes to physician | : Treat symptomatically. Symptoms may be delayed. |

SECTION 5. FIREFIGHTING MEASURES

| | |
|--------------------------------------|---|
| Suitable extinguishing media | : Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical |
| Unsuitable extinguishing media | : High volume water jet |
| Specific hazards during firefighting | : Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : Carbon dioxide (CO ₂) Carbon monoxide Smoke |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Further information | : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. |

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Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

For safety reasons in case of fire, cans should be stored separately in closed containments.

Use a water spray to cool fully closed containers.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage : No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline

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materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Engineering measures : effective ventilation in all processing areas**Personal protective equipment**

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection

: Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : clear, orange

Odour : strong

Odour Threshold : No data available

pH : Not applicable

Melting point/freezing point : No data available

Boiling point : 170 °C

Flash point : 53.9 °C
Method: closed cup

Evaporation rate : < 1

Upper explosion limit : No data available

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| | |
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| Lower explosion limit | : No data available |
| Vapour pressure | : 2.533 hPa |
| Relative vapour density | : No data available |
| Density | : 0.864 g/cm ³ |
| Solubility(ies) | |
| Water solubility | : emulsifiable |
| Solubility in other solvents | : Not applicable |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : not determined |
| Thermal decomposition | : No data available |
| Viscosity | |
| Viscosity, kinematic | : 3.8 mm ² /s (20 °C) |

SECTION 10. STABILITY AND REACTIVITY

| | |
|------------------------------------|--|
| Reactivity | : Stable |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : Vapours may form explosive mixture with air. No decomposition if stored and applied as directed. |
| Conditions to avoid | : Extremes of temperature and direct sunlight. Heat, flames and sparks. |
| Incompatible materials | : Acids Oxidizing agents |
| Hazardous decomposition products | : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NO _x) |

SECTION 11. TOXICOLOGICAL INFORMATION**Potential Health Effects**

| | |
|------------------------------|---|
| Aggravated Medical Condition | : None known. |
| Symptoms of Overexposure | : Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. |

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Carcinogenicity:

| | |
|--------------|---|
| IARC | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| 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. |
| 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. |
| NTP | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |

Acute toxicity**Product:**

Acute oral toxicity : Acute toxicity estimate : 3,716 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:**d-limonene:**

Acute oral toxicity : LD50 Oral Rat: 4,400 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: > 5,000 mg/kg

4-Nonylphenol branched, ethoxylated:

Acute oral toxicity : LD50 Rat: 5,000 mg/kg

Acute dermal toxicity : LD50 Rabbit: 2,573 mg/kg

7-methyl-3-methyleneocta-1,6-diene:

Acute oral toxicity : LD50 Oral Rat: > 5,000 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: > 5,000 mg/kg

Skin corrosion/irritation**Product:**

Remarks: Irritating to skin.

Serious eye damage/eye irritation**Product:**

Remarks: Severe eye irritation

Respiratory or skin sensitisation

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Product:

Remarks: Causes sensitisation.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information**Product:**

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential**Product:**

Partition coefficient: n-octanol/water : Remarks: No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I

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| | |
|-----------------------------------|---|
| Remarks | Substances This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). |
| Additional ecological information | : No data available |

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

| | |
|------------------------|--|
| Waste from residues | : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local regulations. |
| Contaminated packaging | : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum. |

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel):
UN1993, FLAMMABLE LIQUID, N.O.S., (D-LIMONENE), 3, III

Transportation Regulation: IATA (Cargo Air):
UN1993, Flammable liquid, n.o.s., (D-LIMONENE), 3, III

Transportation Regulation: IATA (Passenger Air):
UN1993, Flammable liquid, n.o.s., (D-LIMONENE), 3, III

Transportation Regulation: TDG (Canada):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

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SECTION 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.
No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.
7-methyl-3-methyleneocta-1,6-diene 123-35-3

The components of this product are reported in the following inventories:

TSCA On TSCA Inventory
DSL All components of this product are on the Canadian DSL

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

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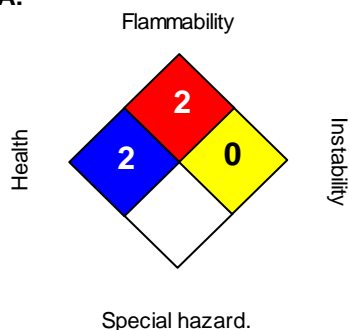
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Further information

NFPA:



HMIS III:

| | |
|------------------------|----------|
| HEALTH | 2 |
| FLAMMABILITY | 2 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms



Signal word

: **Danger:**

Hazard statements

: Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Precautionary statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ eye protection/ face protection.

Response: IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF ON SKIN (or hair): 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. Do NOT induce vomiting. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local regulation.

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Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.