SAFETY DATA SHEET

PA1026 TM TW MANGO SMTH REFILL 6/CS

Version 1.0  Revision Date 05/29/2015  Print Date 06/09/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : PA1026 TM TW MANGO SMTH REFILL 6/CS
Material number : 000000000001043708

Manufacturer or supplier's details
Company : Zep Inc.
Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318
Telephone : 404-352-1680

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Appearance</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>pleasant</td>
</tr>
</tbody>
</table>

GHS Classification

- Skin corrosion : Category 1B
- Serious eye damage : Category 1

GHS Label element

- Hazard pictograms :
- Signal word : Danger
- Hazard statements : H314 Causes severe skin burns and eye damage.

Precautionary statements :
- Prevention: P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove victim to fresh air
and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container in accordance with local regulation.

Potential Health Effects

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C12-13, ethoxylated</td>
<td>66455-14-9</td>
<td>&gt;= 10 – &lt; 20</td>
</tr>
<tr>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>&gt;= 5 – &lt; 10</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides</td>
<td>68391-01-5</td>
<td>&gt;= 5 – &lt; 10</td>
</tr>
<tr>
<td>ethanol</td>
<td>64-17-5</td>
<td>&gt;= 1 – &lt; 5</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

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. Consult a physician after significant exposure.

In case of skin contact: If skin irritation persists, call a physician. Wash off immediately with plenty of water for at least 15
In case of eye contact: Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Rinse immediately with plenty of water for at least 15 minutes.

If swallowed: Keep respiratory tract clear. 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. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water spray jet
Alcohol-resistant foam
Carbon dioxide (CO2)
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 (CO2)
Carbon monoxide
Smoke
Nitrogen oxides (NOx)

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

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. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe 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:
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Sweep up or vacuum up spillage and collect in suitable container for disposal.

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.
- Do not breathe vapours or spray mist.
- Take precautionary measures against static discharges.
- Provide sufficient air exchange and/or exhaust in work rooms.
- Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage:
- Keep container tightly closed in a dry and well-ventilated place.
- Observe label precautions.
- Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid:
- Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>TWA</td>
<td>200 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>400 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 980 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>500 ppm 1,225 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 980 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 980 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>500 ppm 1,225 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,900 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,900 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
</tbody>
</table>
Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPAN-2-OL</td>
<td>67-63-0</td>
<td>Acetone</td>
<td>Urine</td>
<td>End of shift at end of workweek</td>
<td>40 mg/l</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

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

Eye protection: Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection: impervious clothing

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: colourless

Odour: pleasant

Odour Threshold: no data available

pH: 6.5

Melting point/freezing point: no data available

Boiling point: no data available

Flash point: does not flash

Evaporation rate: no data available

Upper explosion limit: no data available

Lower explosion limit: no data available
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Vapour pressure: not determined
Relative vapour density: no data available
Density: 1.02 g/cm³
Solubility(ies):
Water solubility: no data available
Partition coefficient: n-octanol/water: no data available
Auto-ignition temperature: not determined
Thermal decomposition: no data available
Viscosity
Viscosity, kinematic: no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions:
No decomposition if stored and applied as directed.
Conditions to avoid: Heat.
Incompatible materials: no data available
Hazardous decomposition products: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute oral toxicity:
Acute toxicity estimate: 4,731 mg/kg
Method: Calculation method

Components:
propan-2-ol:
Acute oral toxicity:
LD50 Oral rat: 4,396 mg/kg
Method: Calculation method

ethanol:
Acute oral toxicity:
LD50 Oral rat: 7,060 mg/kg

Acute inhalation toxicity:
LC50 rat: 124.7 mg/l
Exposure time: 4 h
Skin corrosion/irritation

**Product:**
Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

**Product:**
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

Alcohols, C12-13, ethoxylated:
propan-2-ol:
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides:
ethanol:

STOT - single exposure
no data available

STOT - repeated exposure
no data available

Aspiration toxicity
no data available

Further information

**Product:**
Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
no data available

Persistence and degradability
no data available
Bioaccumulative potential
SAFETY DATA SHEET

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 Substances
Remarks 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: Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

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

Transportation Regulation: IMDG (Vessel):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Cargo Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Passenger Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
SECTION 15. REGULATORY INFORMATION

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 : Acute Health Hazard

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

SARA 313 : 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 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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.
AICS On the inventory, or in compliance with the inventory
NZIoC On the inventory, or in compliance with the inventory
PICCS On the inventory, or in compliance with the inventory
IECSC On the inventory, or in compliance with the inventory

Inventory Acronym and Validity Area Legend:
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION
Further information

NFPA:

HMIS III:

OSHA GHS Label Information:

Hazard pictograms:

Signal word: Danger

Hazard statements:

Precautionary statements:

Prevention: Wash skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Storage: Store locked up.

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

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