SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : A00365 MST ICS ENRGZD ELCTRCL CLNR 20n20
Material number : 0000000000102262

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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : Aerosol containing a compressed gas
Colour : clear, colourless
Odour : characteristic

GHS Classification
Gases under pressure : Compressed gas
Skin irritation : Category 2
Eye irritation : Category 2A
Carcinogenicity : Category 1B

GHS Label element
Hazard pictograms :

Signal word : Danger

Hazard statements :
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H350 May cause cancer.

Precautionary statements :
Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
P281 Use personal protective equipment as required.
P251 Pressurized container: Do not pierce or burn, even after use.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Storage:
P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
P403 Store in a well-ventilated place.

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

Potential Health Effects

Carcinogenicity:

IARC Group 2A: Probably carcinogenic to humans
tetrachloroethylene 127-18-4

ACGIH Confirmed animal carcinogen with unknown relevance to humans
tetrachloroethylene 127-18-4

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 Reasonably anticipated to be a human carcinogen
tetrachloroethylene 127-18-4

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>tetrachloroethylene</td>
<td>127-18-4</td>
<td>&gt;= 90 - &lt;= 100</td>
</tr>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>carbon dioxide</td>
<td>124-38-9</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: Remove person to fresh air. If signs/symptoms continue, get medical attention.

In case of skin contact: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Call a physician if irritation develops or persists.

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

If swallowed: DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Dry chemical
Alcohol-resistant foam
Carbon dioxide (CO2)
Water spray jet

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
Chlorine compounds

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.
- Immediately 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:
- 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.
- Container may be opened only under exhaust ventilation hood.
- Always replace cap after use.
- Dispose of rinse water in accordance with local and national regulations.
- Do not breathe vapours or spray mist.

Conditions for safe storage:
- BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
- 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.
- Keep in a dry, cool and well-ventilated place.
- No smoking.

Materials to avoid:
- Strong 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)</th>
<th>Control parameters /</th>
<th>Basis</th>
</tr>
</thead>
</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>TETRACHLOROETHYLENE</td>
<td>127-18-4</td>
<td>Tetrachloroethylene</td>
<td>In blood</td>
<td>Prior to shift (16 hours after exposure ceases)</td>
<td>0.5 mg/l</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>TETRACHLOROETHYLENE</td>
<td></td>
<td></td>
<td>In end-exhaled air</td>
<td>Prior to shift (16 hours after exposure ceases)</td>
<td>3.0 parts per million</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>2-PROPANONE</td>
<td>67-64-1</td>
<td>Acetone</td>
<td>Urine</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>50 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: Safety glasses
Ensure that eyewash stations and safety showers are close to the workstation location.

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: Aerosol containing a compressed gas

Colour: clear, colourless

Odour: characteristic

Odour Threshold: no data available

pH: no data available

Melting point/freezing point: no data available

Boiling point: no data available

Flash point: does not flash

Evaporation rate: not determined

Upper explosion limit: no data available

Lower explosion limit: no data available

Vapour pressure: 5,860 - 6,894 hPa

Relative vapour density: no data available

Density: 1.60 g/cm3

Solubility(ies):
Water solubility: insoluble

Partition coefficient: n-octanol/water: no data available

Auto-ignition temperature: not determined

Thermal decomposition: no data available

Viscosity
Viscosity, kinematic : no data available
Heat of combustion : 6.12 kJ/g

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 : Heat, flames and sparks.
Extremes of temperature and direct sunlight.
Incompatible materials : Aluminium
Strong oxidizing agents
Hazardous decomposition products : Carbon monoxide
Carbon dioxide (CO2)
Gaseous hydrogen chloride (HCl).
Phosgene
Chlorine

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Product:
Acute oral toxicity : Acute toxicity estimate : 2,837 mg/kg
Method: Calculation method

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

Components:
tetrachloroethylene:
Acute oral toxicity : LD50 Oral rat: 2,629 mg/kg
Acute inhalation toxicity : LC50 rat: 34,200 mg/l
Exposure time: 8 h
Acute dermal toxicity : LD50 Dermal rabbit: 5,000 mg/kg

Skin corrosion/irritation
Product:
Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product:
Remarks: Irritating to eyes.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

- tetrachloroethylene:
- acetone:
- carbon dioxide:

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

Product:
Partition coefficient: n-octanol/water
Remarks: no data available

Components:
tetrachloroethylene: Partition coefficient: n-octanol/water: log Pow: 3.40

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 | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life. |

**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): ORM-D, CONSUMER COMMODITY |
| Transportation Regulation: IMDG (Vessel): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity |
| Transportation Regulation: IATA (Cargo Air): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity |
| Transportation Regulation: IATA (Passenger Air): |
SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>tetrachloroethylene</td>
<td>127-18-4</td>
<td>100</td>
<td>108</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards

- Sudden Release of Pressure Hazard
- Acute Health Hazard
- Chronic 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

- The following components are subject to reporting levels established by SARA Title III, Section 313:
  - tetrachloroethylene 127-18-4 92.6534 %

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

- tetrachloroethylene 127-18-4

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: Not 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:  
- Flammability: 0
- Health: 2
- Instability: 0

HMIS III:  
- HEALTH: 2
- FLAMMABILITY: 0
- PHYSICAL HAZARD: 2

OSHA GHS Label Information:

Hazard pictograms:  
- Danger

Signal word:  
- Danger:

Hazard statements:  
- Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause cancer.

Precautionary statements:  
- Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash skin thoroughly after handling. Wear eye protection/face protection. Wear protective gloves. Use personal protective equipment as required. Pressurized container: Do not pierce or burn, even after use. Response: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. IF skin irritation occurs: Get medical advice/attention. IF eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122 °F. Store in a well-ventilated place.

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

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