

**A00369 MST CONTACT & CIR BRD IV 16n10**

Version 1.0

Revision Date 02/19/2015

Print Date 06/01/2015

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Material name : A00369 MST CONTACT &amp; CIR BRD IV 16n10

Material number : 00000000001038369

**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** : CHEMTREC: 800-424-9300 - All Calls Recorded.

**Emergency** : In the District of Columbia 202-483-7616

**SECTION 2. HAZARDS IDENTIFICATION**
**Emergency Overview**

Appearance	Aerosol containing a liquefied gas
Colour	clear
Odour	solvent-like

**GHS Classification**

Flammable aerosols : Category 2

Gases under pressure : Liquefied gas

**GHS Label element**

Hazard pictograms :



Signal word : Warning

Hazard statements : H223 Flammable aerosol.  
H280 Contains gas under pressure; may explode if heated.
 Precautionary statements : **Prevention:**  
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P211 Do not spray on an open flame or other ignition source.  
 P251 Pressurized container: Do not pierce or burn, even after use.  
**Storage:**  
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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**Potential Health Effects**
**Carcinogenicity:**

<b>IARC</b>	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.
<b>ACGIH</b>	Confirmed animal carcinogen with unknown relevance to humans ethanol 64-17-5
<b>OSHA</b>	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.
<b>NTP</b>	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**
**Hazardous components**

Chemical Name	CAS-No.	Concentration [%]
norflurane	811-97-2	>= 70 - < 90
trans-dichloroethylene	156-60-5	>= 5 - < 10
ethanol	64-17-5	>= 1 - < 5

**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	: Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.
In case of skin contact	: If skin irritation persists, call a physician. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes.
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.

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Take victim immediately to hospital.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Foam  
Dry chemical  
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 (CO<sub>2</sub>)  
Carbon monoxide  
Smoke  
Fluorine compounds  
Silicon oxides  
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.  
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.  
Ensure adequate ventilation.  
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 : 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.

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**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.  
 Always replace cap after use.
- 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.  
 No smoking.  
 Keep in a dry, cool and well-ventilated place.  
 Observe label precautions.  
 Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Keep away from oxidising agents and strongly acid or alkaline materials.

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

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
norflurane	811-97-2	TWA	1,000 ppm	US WEEL
ethanol	64-17-5	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	OSHA P0

**Personal protective equipment**

- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hand protection
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : Aerosol containing a liquefied gas
- Colour : clear
- Odour : solvent-like
- Odour Threshold : no data available
- pH : not applicable
- Melting point/freezing point : no data available
- Boiling point : no data available
- Flash point :  
not applicable
- Evaporation rate : n-Butyl Acetate = 1.0
- Upper explosion limit : no data available
- Lower explosion limit : no data available
- Vapour pressure : no data available
- Relative vapour density : no data available
- Density : no data available
- Solubility(ies)
- Water solubility : negligible
- Partition coefficient: n-octanol/water : no data available
- Auto-ignition temperature : not determined
- Thermal decomposition : no data available
- Heat of combustion : 7.73 kJ/g

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**SECTION 10. STABILITY AND REACTIVITY**

- Reactivity : Stable

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Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidizing agents Strong bases Alkaline earth metals Aluminium Zinc
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NOx)

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

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

Acute inhalation toxicity : Acute toxicity estimate : > 10 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

**Skin corrosion/irritation****Product:**

Remarks: May cause skin irritation and/or dermatitis.

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

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

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**Reproductive toxicity**

no data available

**norflurane:**  
**trans-dichloroethylene:**  
**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

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**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 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., Harmful to

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aquatic life with long lasting effects.

**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

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

**SECTION 14. TRANSPORT INFORMATION**

Transportation Regulation: 49 CFR (USA):  
ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel):  
UN1950, AEROSOLS, 2.1, - Limited quantity

Transportation Regulation: IATA (Cargo Air):  
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: IATA (Passenger Air):  
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: TDG (Canada):  
UN1950, AEROSOLS, 2.1, - Limited quantity

**SECTION 15. REGULATORY INFORMATION**
**EPCRA - Emergency Planning and Community Right-to-Know Act**
**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
trans-dichloroethylene	156-60-5	1000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**



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

**SARA 311/312 Hazards** : Fire Hazard  
Sudden Release of Pressure 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** 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

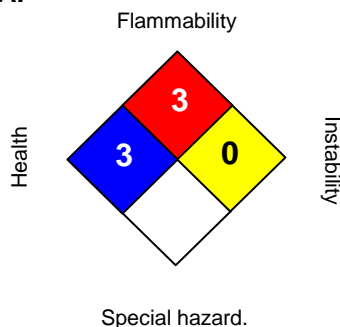
**Inventory Acronym and Validity Area Legend:**

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:**



**HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<b>2</b>

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

OSHA GHS Label Information:

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Hazard pictograms



Signal word

: **Warning:**

Hazard statements

: Flammable aerosol. Contains gas under pressure; may explode if heated.

Precautionary statements

:

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source.  
Pressurized container: Do not pierce or burn, even after use.

**Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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