

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : B00309 Mst Rust Treat 4/1gll

Material number : 00000000001001998

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 | liquid |
| Colour | green |
| Odour | characteristic |

GHS Classification

Acute toxicity (Oral) : Category 3
 Acute toxicity (Dermal) : Category 3
 Skin corrosion : Category 1B
 Serious eye damage : Category 1

GHS Label element

Hazard pictograms :



Signal word : Danger

 Hazard statements : H301 + H311 Toxic if swallowed or in contact with skin
 H314 Causes severe skin burns and eye damage.

 Precautionary statements : **Prevention:**
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
 P301 + P310 + P330 IF SWALLOWED: Immediately call a

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

POISON CENTER or doctor/ physician. Rinse mouth.
 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 | Confirmed animal carcinogen with unknown relevance to humans 2-butoxyethanol 111-76-2 |
| 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

| Chemical Name | CAS-No. | Concentration [%] |
|----------------------|-----------|-------------------|
| orthophosphoric acid | 7664-38-2 | >= 30 - < 50 |
| 2-butoxyethanol | 111-76-2 | >= 5 - < 10 |
| hydrogen fluoride | 7664-39-3 | >= 1 - < 5 |

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
 Consult a physician.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

- 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 plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention while applying and massaging in 2.5% calcium gluconate gel. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get immediate medical attention.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
If in eyes, rinse with water for 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
Carbon dioxide (CO₂)
Dry chemical
Foam
- 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
Phosphorus compounds
Nitrogen oxides (NO_x)
Fluorine 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.

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

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.

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). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Technical measures : Due to the unique hazards associated with hydrogen fluoride (HF), it is highly recommended that emergency pre-planning and training of employees occur to mitigate and facilitate rapid response to an exposure. Facilities need to have access to emergency showers, proper personal protective equipment (PPE), a supply of calcium gluconate gel, and complete training of all individuals on proper PPE and procedures.

Advice on safe handling : Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. 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. 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 : Do not freeze. Store and keep away from bases and alkalies.

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

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|----------------------|-----------|----------------------------------|---|-----------|
| orthophosphoric acid | 7664-38-2 | TWA | 1 mg/m ³ | ACGIH |
| | | STEL | 3 mg/m ³ | ACGIH |
| | | TWA | 1 mg/m ³ | NIOSH REL |
| | | ST | 3 mg/m ³ | NIOSH REL |
| | | TWA | 1 mg/m ³ | OSHA Z-1 |
| | | TWA | 1 mg/m ³ | OSHA P0 |
| | | STEL | 3 mg/m ³ | OSHA P0 |
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm | ACGIH |
| | | TWA | 5 ppm 24 mg/m ³ | NIOSH REL |
| | | TWA | 50 ppm 240 mg/m ³ | OSHA Z-1 |
| | | TWA | 25 ppm 120 mg/m ³ | OSHA P0 |
| hydrogen fluoride | 7664-39-3 | TWA | 0.5 ppm | ACGIH |
| | | C | 2 ppm | ACGIH |
| | | TWA | 3 ppm 2.5 mg/m ³ | NIOSH REL |
| | | C | 6 ppm 5 mg/m ³ | NIOSH REL |
| | | TWA | 3 ppm | OSHA Z-2 |
| | | TWA | 3 ppm | OSHA P0 |
| | | STEL | 6 ppm | OSHA P0 |

Biological occupational exposure limits

| Component | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---------------------|-----------|-------------------------|---------------------|--|---------------------------|-----------|
| 2-BUTOXYETHANOL | 111-76-2 | Butoxyacetic acid (BAA) | Urine | End of shift (As soon as possible after exposure ceases) | 200 mg/g | ACGIH BEI |
| Remarks: Creatinine | | | | | | |
| HYDROFLUORIC ACID | 7664-39-3 | Fluoride | Urine | Prior to shift (16 hours after exposure ceases) | 2 mg/l | ACGIH BEI |
| HYDROFLUORIC ACID | | Fluoride | Urine | End of shift (As soon as possible after exposure ceases) | 3 mg/l | ACGIH BEI |

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

required.

| | |
|--------------------------|---|
| Hand protection | |
| Remarks | : The suitability for a specific workplace should be discussed with the producers of the protective gloves. |
| Eye protection | : Eye wash bottle with pure water 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 | : green |
| Odour | : characteristic |
| Odour Threshold | : no data available |
| pH | : no data available |
| Melting point/freezing point | : not applicable |
| Boiling point | : 100 °C |
| Flash point | : does not flash |
| Evaporation rate | : 1 |
| 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 | : completely miscible |
| Partition coefficient: n-octanol/water | : no data available |
| Auto-ignition temperature | : not determined |
| Thermal decomposition | : no data available |
| Viscosity | |

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

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 : Alkali metals
Metals
glass

Hazardous decomposition products : Carbon oxides
Phosphorus compounds
Nitrogen oxides (NOx)

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

Acute oral toxicity : Acute toxicity estimate : 229.56 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 25.48 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 287.17 mg/kg
Method: Calculation method

Skin corrosion/irritation**Product:**

Remarks: Causes skin burns. Harmful if absorbed through the skin. Contact results in immediate skin absorption which may cause hypocalcemia (calcium loss). This effect may be delayed for several hours after exposure. Severe over-exposure by absorption can result in death. Get immediate medical attention.

Components:**hydrogen fluoride:**

Remarks: Causes skin burns. Harmful if absorbed through the skin. Contact results in immediate skin absorption which may cause hypocalcemia (calcium loss). This effect may be delayed for

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

several hours after exposure. Severe over-exposure by absorption can result in death. Get immediate medical attention.

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

orthophosphoric acid:

2-butoxyethanol:

hydrogen fluoride:

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

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

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 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.

SECTION 14. TRANSPORT INFORMATION

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

| |
|--|
| Transportation Regulation: IMDG (Vessel): UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (PHOSPHORIC ACID, AMMONIUM BIFLUORIDE), 8, III |
|--|

| |
|---|
| Transportation Regulation: IATA (Cargo Air): UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (PHOSPHORIC ACID, AMMONIUM BIFLUORIDE), 8, III |
|---|

| |
|---|
| Transportation Regulation: IATA (Passenger Air): UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (PHOSPHORIC ACID, AMMONIUM BIFLUORIDE), 8, III |
|---|

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

 Transportation Regulation: TDG (Canada):
 UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (PHOSPHORIC ACID, AMMONIUM BIFLUORIDE), 8, III

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) |
|-------------------|-----------|--------------------|-----------------------------|
| hydrogen fluoride | 7664-39-3 | 100 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|-------------------|-----------|--------------------|-----------------------------|
| hydrogen fluoride | 7664-39-3 | 100 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

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 | This product contains one or several components listed in the Canadian NDSL. |
| AICS | Not in compliance with the inventory |
| NZIoC | Not in compliance with the inventory |
| PICCS | Not in compliance with the inventory |
| IECSC | Not in compliance with the inventory |

Inventory Acronym and Validity Area Legend:

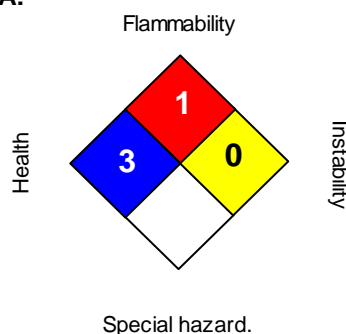
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

| | |
|------------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

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

OSHA GHS Label Information:

Hazard pictograms



Signal word

Hazard statements

Precautionary statements

Danger:
Toxic if swallowed or in contact with skin. Causes severe skin burns and eye damage.

Prevention: Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. 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.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

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.

B00309 Mst Rust Treat 4/1gll

Version 1.0

Revision Date 03/13/2015

Print Date 06/03/2015
