# Material Safety Data Sheet (MSDS)

## 1. Product & Company Identification

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>MORDRY® Zirconium 12</th>
<th>MANUFACTURER</th>
<th>DELTA specialties</th>
</tr>
</thead>
</table>

## 2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>EC No.</th>
<th>CAS#</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zirconium compound</td>
<td>-</td>
<td>-</td>
<td>55-65</td>
<td>Xi R 36/37/38</td>
</tr>
<tr>
<td>Mineral Spirit</td>
<td>265-185-4</td>
<td>64742-82-1</td>
<td>20-40</td>
<td>Xn R 10, R 36/37/38, R65</td>
</tr>
</tbody>
</table>

## 3. Hazards Identification - Potential Health Effects

### Emergency Overview

MORDRY® Zirconium 18 is a light amber liquid with a solvent odor. Combustible liquid. May cause eye, skin, and respiratory irritation. May cause dermal sensitization.

### Routes of Entry

**Ingestion**: Ingestion, skin contact, skin absorption, eyes, inhalation. Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Ingestion of excessive quantities may cause gastrointestinal irritation (nausea, vomiting, and diarrhea). Aspiration of material into the lungs can cause lung damage. Ventricular fibrillation may occur.

**Skin**: Direct contact may cause mild irritation with drying, redness, and cracking due to the de-fatting action on the skin. Solvents may be absorbed through the skin and may contribute to symptoms of toxicity from other routes of exposure. Sensitization dermatitis may occur in persons who have been previously exposed to zirconium compounds.

**Eye Contact**: Exposure to liquid or vapors may cause eye irritation. Symptoms may include stinging, tearing, and redness.

**Inhalation**: Short-term inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects. Excessive inhalation may be harmful and may cause respiratory irritation, nausea, vomiting, drunkenness, and lung damage. Ventricular fibrillation may occur. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits.

### Chronic Effects

Repeated or prolonged inhalation may cause central nervous system effects, anemia, and damage to the liver and bone marrow. May affect the stomach, liver and kidneys based on animal studies.

### Target Organs

Central nervous system, eyes, skin, respiratory system, blood, kidneys.

### Carcinogenicity

This product (or component) is not listed as a carcinogen according to OSHA, NTP, IARC, and ACGIH.

### Medical Conditions Aggravated by Exposure

May aggravate pre-existing, CNS, liver, respiratory and skin disorders and allergies.

## 4. First Aid Measures

### Ingestion

Get medical attention immediately. Do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration.

### Skin Contact

Remove contaminated clothing and shoes promptly. Wash affected areas with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 minutes). If irritation or redness persists, get medical attention. Wash clothing before reuse.

### Eye Contact

Wash eyes immediately with large amounts of water for at least 15 minutes. Get medical attention immediately.

### Inhalation

Remove from exposure area to fresh air promptly. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention.

### Notes to Physician

None

## 5. Fire Fighting Measures

### Flash Point

≥39°C (>102°F) (ASTM D3278-89 Setaflash Closed-Cup)

### Flammable Limits

0.6% - 9.3% (for petroleum distillates)

### Autoignition Temperature

No data

### Flamability Class

Combustible liquid - Class II

### Hazardous Products of Combustion

Carbon monoxide, carbon dioxide, zirconium oxides, and various hydrocarbons.

### Fire Extinguishing Media

Dry chemical, carbon dioxide, water spray, or regular foam.

### Fire Fighting Instructions

Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Avoid breathing vapors, keep upwind. Positive pressure self-contained breathing apparatus with full face piece and structural firefighters’ protective clothing will provide limited protection.

### Unusual Fire & Explosion Hazards

Solvent vapors are heavier than air and may travel along the ground or be moved by ventilation.

### Hazards

Flames and ignition sources. Runoff to sewer may create fire or explosion hazard. Never use welding or cutting torch on or near drum (even empty) because product (even residue) can ignite explosively.

## 6. Accidental Release Measures

Keep unnecessary people away; isolate hazard area and deny entry. Wear protective equipment as specified in Section 8. Stay upwind; keep out.
of low areas. Positive pressure self-contained breathing apparatus and structural firefighters' protective clothing will provide limited protection. Shut off ignition sources; no flares, smoking, or flames in hazard area. Stop leak if you can do it without risk. Use water spray to reduce vapor, but it may not prevent ignition in closed spaces. For small spills, absorb with vermiculite or other noncombustible absorbent material and place into containers for later disposal. For large spills, dike far ahead of liquid spill for later disposal. If water pollution occurs, notify the appropriate authorities. Observe all local regulations regarding notifications of accidental releases.
7. HANDLING & STORAGE
Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of. Store away from incompatible substances in a cool, dry, ventilated area. Plastic drums are non-conductive and, appropriate safety measures must be taken to prevent possible ignition when filling or dispensing flammable or combustible liquids. Observe all local regulations when storing or disposing of this substance.

8. PERSONAL PROTECTION/EXPOSURE CONTROLS

VENTILATION
Provide local exhaust or process enclosure ventilation to meet published exposure limits.

EYE/FACE PROTECTION
If potential for contact with liquid exists, use splash-proof safety goggles or other approved eye protection.

SKIN PROTECTION
Wear impervious gloves and apron to prevent skin contact. Wear impermeable suit if exposure is possible to a large portion of the body.

RESPIRATORY PROTECTION
If exposure may exceed recommended limits, an approved respirator should be used based on exposure level found in the workplace.

OTHER
Eyewash and safety shower should be available within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Light amber liquid

SPECIFIC GRAVITY AT 25°C. (Water=1)
1.05-1.15

ODOR
Solvent odor

WATER SOLUBILITY
Insoluble

INITIAL BOILING POINT
149°C (300°F)

pH
Not determined

VAPOOR PRESSURE AT 20°C.
<3 mm Hg (for petroleum distillates)

EVAPORATION RATE (Butyl acetate=1)
< 1

VAPOUR DENSITY (Air=1)
1

%VOLATILES BY WEIGHT
≤ 40 %

10. STABILITY & REACTIVITY
Stable under normal temperatures and pressures.

CONDITIONS TO AVOID
Avoid heat or sources of ignition.

INCOMPATIBILITY
Avoid contact with strong acids, bases, and oxidizing agents.

HAZARDOUS DECOMPOSITION
Decomposition may release carbon monoxide and carbon dioxide, zirconium oxides, and various hydrocarbons.

HAZARDOUS POLYMERIZATION
Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION
No acute test data is available on this product. For additional information, contact: Morechem, Al-Moustafa for industries and designs.

12. ECOLOGICAL INFORMATION
Metal compounds are known to have detrimental effects on aquatic organisms and are known to persist in the environment.

13. DISPOSAL INFORMATION
Disposal procedures must be in accordance with local regulations.

14. TRANSPORTATION INFORMATION

IATA
Flammable liquid, n.o.s. (contains: petroleum distillates), 3, UN1993 PG III

SHIPPING NAME
Flammable liquid

LABELS REQUIRED

15. REGULATORY INFORMATION

RISK PHRASES
R 36 Irritating to eyes.
R 37 Irritating to respiratory system.
R 38 Irritating to skin.

SAFETY PHRASES
S 23 Do not breathe vapour/spray.
S 24 Avoid contact with skin.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 29 Do not empty into drains.
S 35 This material and its container must be disposed of on a safe way.

S 37 wear suitable gloves.
S 39 Wear eye/face protection
S 51 Use only in well ventilated areas.
S 62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

16. OTHER

REVISIONS
Prepared by: DELTA specialties- Al-Moustafa for Industries & Designs

This MSDS has been revised in the following sections: (revisions indicated in left border)

New issue

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