# Safety Data Sheet

# OR90WPM, Part B

## Section 1 – Identification

Oak Ridge Foam & Coating Systems, Inc
575 Commercial Ave
Green Lake, WI 54941
920-294-6800

Emergency Telephone: (800) 424-9300 Chemtrec
800-625-9577 (Oak Ridge Foam & Coating Systems, Inc)
BOTH NUMBERS ARE AVAILABLE DAYS, NIGHTS, WEEKENDS, & HOLIDAYS

| | |
|---|---|
| **GHS product identifier:** | **OR90WPM, Part B** |
| **Other means of identification:** | Not available. |
| **Product type:** | Liquid. |

**Relevant identified uses of the substance or mixture and uses advised against**

| | |
|---|---|
| **Product use:** | Component of a Polyurethane System |
| **Supplier's details:** | Oak Ridge Foam & Coating Systems, Inc<br>575 Commercial Avenue<br>Green Lake, WI 54941 |
| **Email address of person responsible for this SDS:** | info@oakridgepoly.com |
| **Emergency telephone number (24h/7 day):** | Chemtrec: (800) 424-9300 or (703) 527-3887 |

## Section 2 – Hazards Identification

**OSHA/HCS status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture:**

| | |
|---|---|
| Acute Toxicity: | 4 (oral) |
| Acute Toxicity: | 4 (dermal) |
| Skin corrosion/irritation | 2 |
| Serious eye damage/eye irritation | 2 |
| Hazardous to the environment-acute | 3 |
| Hazardous to the environment-chronic | 3 |

**GHS Label Elements**

**Hazard pictograms:**

Signal word: Danger

**Hazard Statements:** Harmful if inhaled
Causes skin and eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.

**Precautionary Statements:** Wear protective gloves. Wear eye or face protection. In case of inadequate ventilation, wear respiratory protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification:** Not available.

## Section 3 – Hazards Identification

**Hazardous Components**

| Weight Percent | Components | CAS-No. | Classification |
|---|---|---|---|
| 50-70% | Poly(oxy(methyl-1,2-ethanediyl)), Alpha-(2-aminomethylethyl) omega-(2-aminomethyletoxy | 9046-10-0 | Acute Toxicity- 4 (oral)<br>Acute Toxicity- 4 (dermal)<br>Skin corrosion/irritation-2<br>Serious eye damage/eye irritation-2<br>Hazardous to the aquatic environment (acute)-3<br>Hazardous to the aquatic environment (chronic)-3 |
| 15-25% | Aluminum | 7429-90-5 | Acute Toxicity- 4 (oral)<br>Acute Toxicity- 4 (dermal)<br>Skin corrosion/irritation-2<br>Serious eye damage/eye irritation-2<br>Hazardous to the aquatic environment (acute)-3<br>Hazardous to the aquatic environment (chronic)-3 |

| | | | |
|---|---|---|---|
| 5-25% | Diethyltolvenediamine | 68479-98-1 | Acute Toxicity- 4 (oral)<br>Acute Toxicity- 4 (dermal)<br>Skin corrosion/irritation-2<br>Serious eye damage/eye irritation-2<br>Hazardous to the aquatic environment (acute)-3<br>Hazardous to the aquatic environment (chronic)-3 |
| 5-20% | Glycerol poly (oxypropylene) triamine | 64852-22-8 | Acute Toxicity- 4 (oral)<br>Acute Toxicity- 4 (dermal)<br>Skin corrosion/irritation-2<br>Serious eye damage/eye irritation-2<br>Hazardous to the aquatic environment (acute)-3<br>Hazardous to the aquatic environment (chronic)-3 |
| 2-10% | 4,4'-methylenebis [N-sec-butylaniline] | 5285-60-9 | Acute Toxicity- 4 (oral)<br>Acute Toxicity- 4 (dermal)<br>Skin corrosion/irritation-2<br>Serious eye damage/eye irritation-2<br>Hazardous to the aquatic environment (acute)-3<br>Hazardous to the aquatic environment (chronic)-3 |
| .5-1.5% | Stoddard Solvent | 8052-41-3 | Acute Toxicity- 4 (oral)<br>Acute Toxicity- 4 (dermal)<br>Skin corrosion/irritation-2<br>Serious eye damage/eye irritation-2<br>Hazardous to the aquatic environment (acute)-3<br>Hazardous to the aquatic environment (chronic)-3 |

The specific chemical identity and/ or exact percentage of components (s) have been withheld as a trade secret.

## Section 4 – First Aid Measures

**Description of first aid measures**

**Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get Medical attention immediately.

**Inhalation:** Move exposed person to fresh air. Get medical attention immediately. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered by qualified personnel.

**Skin contact:** After contact with skin, wash immediately with plenty of warm soapy water: Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. An MDI study has demonstrated that a polyglycol-based skin cleanser

(such as D-TamTm, PEG-400) or corn oil may be more effective than soap and water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Provided the patient is conscious, wash out mouth with water. Get medical attention if symptoms appear.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact:** Causes eye irritation

**Inhalation:** Harmful if inhaled. May cause respiratory irritation. This product is a respiratory irritant and potential respiratory sensitizer: repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. Symptoms may include irritation to the eyes, nose, throat and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons. LC50 (rat) : ca. 490 $mg/m^3$ (4 hours) : using experimentally produced respirable aerosol having aerodynamic diameter <5microns.

**Skin contact:** Causes skin irritation. May cause sensitization by skin contact. Animal studies have shown that respiratory sensitization can be induced by skin contact with known respiratory sensitizers including diisocyanates. These results emphasize the need for protective clothing including gloves to be worn at all times when handling these chemicals or in maintenance work.

**Ingestion:** Low oral toxicity, but ingestion may cause irritation of the gastrointestinal tract.

**Over-exposure signs/symptoms**

**Eye contact:** Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation:** Adverse symptoms may include the following:
respiratory tract irritation
coughing
wheezing and breathing difficulties
asthma

**Skin contact:** Adverse symptoms may include the following:
irritation
redness

**Ingestion:** No specific data

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to Physician**

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: this compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanates.

## Section 5 – Fire Fighting Measures

**Extinguishing media**

| | |
|---|---|
| **Suitable extinguishing media:** | Water spray, dry powder, alcohol-resistant foam, carbon dioxide |
| **Specific hazards arising from the chemical:** | **Toxic gases/vapors**<br>**Depolymerization and liberation of the mentioned substances/group of substances.** |
| **Special protective actions for fire-fighters:** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn. |

## Section 6 – Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

| | |
|---|---|
| **For non-emergency personnel** | Provide adequate ventilation. Wear appropriate personal protective equipment |
| **For emergency responder's** | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **Environmental precautions** | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drain and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| **Methods and materials for containment and cleaning up** | Spills should be contained, solidified, and placed in suitable containers for disposal. |

## Section 7 – Storage and Handling

**Precautions for safe handling**

Ensure thorough ventilation of stories and work areas. Handle in accordance with good industrial hygiene and safety practice. Remove contaminated clothing and protective equipment before entering eating areas. Hands and/or face should be washed before breaks and at the end of the shift. When using do not eat, drink or smoke. Keep away from sources of ignition-No smoking. Keep container tightly sealed.
Protection against fire and explosion:
Prevent electrostatic charge- source of ignition should be kept well clear- fire extinguishers should be kept handy.

**Conditions for safe storage, including any incompatibilities**
Segregate from acids and acid forming substances

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

## Section 8 – Exposure Controls/Personal Protection

**Advice on system design:** Provide local exhaust ventilation to control vapors/mist.

**Personal protective equipment**
**Respiratory protection:**
Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Don not exceed the maximum use concentration for the respirator facepiece /cartridge combination.

**Hand protection:**
Chemical resistant protective gloves

**Eye protection:**
Wear face shield or tightly fitting safety goggles (chemical goggles) is splashing hazard exists.

**General safety and hygiene measures:**
Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Gloves must be inspected regularly and prior to each use. Replace if necessary. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Store work clothing separately.

## Section 9 – Physical Properties

| | |
|---|---|
| **Physical state:** | Liquid |
| **Color:** | Light yellow |
| **Odor:** | Negligible |
| **pH:** | Not available |
| **Melting Point/Freezing Point** | Not available |
| **Evaporation rate:** | Not available |
| **Flammability (solid, gas):** | Not available |
| **Lower and upper explosive (flammable) limits:** | Not available |
| **Vapor pressure:** | Not available |
| **Vapor density:** | 1.06 @ 77°F |
| **Relative density:** | 1 g/cm³ |
| **Freezing Point:** | Approximately 60°F |

| | |
|---|---|
| **Solubility in water:** | Not available |
| **Partition coefficient: n-ctanol/water:** | Not available |
| **Auto-ignition temperature:** | Not available |
| **Decomposition temperature:** | Not available |
| **Viscosity:** | Not available |
| **Flash Point:** | Approximately 360°F |

## Section 10 – Stability and Reactivity

**Reactivity** Under normal conditions of storage and use, hazardous reactions will not occur.

**Stability** Stable under normal conditions of use and storage.

**Conditions to avoid** **V**oid excessive heats. Protect from atmospheric moisture. Replace outage with inert dry nitrogen.

**Incompatible materials** Oxidizing material

**Hazardous Decomposition products** Carbon Dioxide, Carbon Monoxide, Nitrogen Oxides, Ammonis

## Section 11 – Toxicological Information

**Acute toxicity**

| Product/ingredient name | Endpoint | Species | Result |
|---|---|---|---|
| Poly(oxy(methyl-1,2-thanediyl)), Alpha-(2-aminomethylethyl)omega-(2-aminomethylethoxy) | LD50 Dermal<br><br>LD50 Oral | Rat<br><br>Rabbit | 2,885 mg/kg<br>2,980 mg/kg |
| White Spirit | LD50 Oral | Rat | 2,000 mg/kg |
| Diethyltovenediamine | LD50 Oral<br><br>LD50 Dermal | Rat<br><br>Rat | 738 mg/kg<br><br>2,000 mg/kg |
| Glycerol poly (oxypropylene) triamine | LD50 Oral<br>LD50 Dermal | Rat<br>Rabbit | 2,690 mg/kg<br>12,500 mg/kg |
| 4,4'-methylenebis[N-sec-butylaniline] | LD50 Oral<br>LD50 Dermal | Rat<br>Rabbit | 1,380 mg/kg<br>3,090 mg/kg |
| Stoddard Solvent | LD50 | No data available | No data available |

**Conclusion/Summary**

**Skin**
Based on available data, the classification criteria are not met.

**Eyes**
Causes serious eye irritation

**Respiratory**
Based on available data, the classification criteria are not met.

**Specific target organ toxicity (single exposure)**
Based on available data, the classification criteria are not met.

**Specific target organ toxicity (repeated exposure)**
Cause damage to organs through prolonged or repeated exposure

**Aspiration hazard**
Based on available data, the classification criteria are not met.

**Symptoms/injuries after inhalation**
May cause respiratory tract irritation

**Symptoms/injuries after skin contact**
Harmful, in contact with skin. May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Symptoms/injuries after eye contact**
Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and teat production, with marked redness and swelling of the conjunctive.

**Symptoms/injuries after ingestion**
Harmful is swallowed. May cause stomach distress, nausea or vomiting

## Section 12 – Ecological Information

**Toxicity**
Ecology- general: May cause long-term adverse effects in the aquatic environment.

**Persistence and degradability**
Persistence and degradability: No additional information available.

**Bioaccumulative potential:**
Bioaccumulative potential: No additional information available

**Mobility is soil**
Ecology - soil

**Other adverse effect:**
Effect on ozone layer: No additional information available.
Effect on global warning: No known ecological damage caused by this product.

## Section 13 – Disposal Consideration

**Waste treatment methods**
Waste disposal recommendations: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

## Section 14 – Transportation Information

**Proper shipping name**

**DOT:** Not regulated.
**TDG:** Not regulated.
**IMDG:** Not regulated.
**IATA:** Not regulated.

## Section 15 – Regulatory Information

**U.S Federal Regulations**

**OSHA Hazcom Standard Rating:** Hazardous

**US Toxic Substance Control Act:** All material ate listed on the TSCA inventory

**SARA Section 3311/312 Hazard Categories:**
Acute health hazard, chronic health hazard, reactivity hazard.

Components: None

**US EPA Emergency Planning and Right-to-Know Act (EPCRA) ASARA Title 111 Section 313 Toxic Chemical (40 CFR 372.65) -Supplier Notification Required:**

Components: None

**US EPA Resource Conservation and Recovery Act (RCRA) Composite list of Hazardous Waste and Appendix V111 Hazardous Constituents (40 CFR 216):**

If discarded in its purchased form, this product would not be hazardous waste wither by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazard waste. (40CFR 261.20-24)

State Right-to-Know Information
The following chemicals are specifically listed by individual states' other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements/ For details on your regulatory requirements you should contact the appropriate agency in your state.

This product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

**California Prop. 65:**
The following detectable components of this product are substances, or belong to class of substance, know to the State of California to cause cancer and/or reproductive toxicity.

## Section 16 – Other Information

**NFPA 704M Rating**
**Health = 2**
**Fire = 1**
**Reactivity = 0**
**Other=**
**0=Insignificant 1= Slight 2= Moderate 3= High 4= Extreme**

**HMIS Rating**
**Health = 2***
**Flammability = 1**
**Physical Hazard= 1**
**0= Minimal 1=Slight 2= Moderate 3= Serious 4= Severe**
***= Chronic Health Hazard**

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