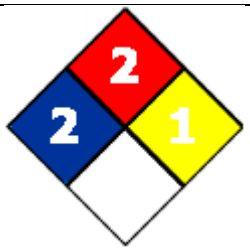
# Material Safety Data Sheet

| NFPA | WHMIS | PPE | Transport Symbol |
|---|---|---|---|
|  |  | |  |





**Preparation Date** 19-Dec-2006 **Revision Date** 11-Feb-2011 **Revision Number** 8

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** White-Knight® WC
**Product Code** 7835
**UN-No** UN1263
**Contact Manufacturer**

The Garland Company, Inc.
3800 East 91st. Street
Cleveland, Ohio 44105-2197
Ph: (800) 762-8225 Fax: (216) 641-0633

Garland Canada, Inc.
1296 Martin Grove Rd.
Toronto, Ontario M9W 4X3
Ph: (416)747-7995 Fax: (416)747-1980

**Emergency Telephone Number** 07973 837 713

## 2. HAZARDS IDENTIFICATION

**Emergency Overview**

Harmful by inhalation, in contact with skin and if swallowed

**Appearance** White. **Physical State** Liquid. **Odor** Petroleum distillates.

**Mexico - Grade** Moderate risk, Grade 2

**Potential Health Effects**

**Principle Routes of Exposure** Inhalation, Eye contact, Skin contact.

**Acute Effects**

**Eyes** Contact with eyes may cause irritation.
**Skin** May cause eye/skin irritation. May cause sensitization by skin contact.

**Inhalation** Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Inhalation of vapours in high concentration may cause irritation of respiratory system.

**Ingestion** Harmful if swallowed.

**Chronic Effects** Prolonged exposure may cause chronic effects.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Not available

**Interactions with Other Chemicals** Not available

**Potential Environmental Effects** See Section 12 for additional Ecological information.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazardous Components**

| Chemical Name | CAS-No | Weight % | North American Hazard Indicator |
|---|---|---|---|
| Titanium dioxide | 13463-67-7 | 5 - 10 | 1 |
| Toluene diisocyanate | 26471-62-5 | 0.1 - 1 | 1 |
| Acetone | 67-64-1 | 1 - 5 | 1 |

## 4. FIRST AID MEASURES

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Skin Contact** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If symptoms persist, call a physician.

**Inhalation** If fumes from reactions are inhaled, move to fresh air immediately.

**Ingestion** Do not induce vomiting without medical advice. Do not induce vomiting. Call a physician or Poison Control Centre immediately.

**Notes to Physician** Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media** Foam. Dry chemical. Dry powder. Carbon dioxide (CO2).

**Unsuitable Extinguishing Media** Do not use a solid water stream as it may scatter and spread fire.

**Hazardous Combustion Products** Carbon monoxide, Carbon dioxide (CO2), Hydrocarbons.

**Explosion Data**

**Sensitivity to mechanical impact** No

**Sensitivity to static discharge** Yes

**Specific Hazards Arising from the Chemical**

Combustible material. Keep product and empty container away from heat and sources of ignition.

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**NFPA** **Health** 2 **Flammability** 2 **Instability** 1

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** Evacuate personnel to safe areas. Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment.

**Environmental Precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Keep out of waterways.

**Methods for Containment** Contain with inert absorbant material

**Methods for Cleaning Up** Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Prevent product from entering drains. Keep in suitable and closed containers for disposal.

**Other Information** Not applicable

## 7. HANDLING AND STORAGE

**Handling** Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Remove all sources of ignition.

**Storage** Keep away from open flames, hot surfaces and sources of ignition. Keep tightly closed in a dry and cool place. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | Ontario TWAEV | Mexico |
|---|---|---|---|---|
| Titanium dioxide | TWA: 10 mg/m$^3$ | TWA: 15 mg/m$^3$ | TWA: 10 mg/m$^3$ | STEL: 20 mg/m$^3$<br>TWA: 10 mg/m$^3$ |
| Toluene diisocyanate | TWA: 0.005 ppm<br>STEL: 0.02 ppm | | CEV: 0.02 ppm<br>CEV: 0.8 µmol/m$^3$<br>TWA: 0.005 ppm<br>TWA: 0.2 µmol/m$^3$ | |
| Acetone | TWA: 500 ppm<br>STEL: 750 ppm | TWA: 2400 mg/m$^3$<br>TWA: 1000 ppm | STEL: 750 ppm<br>TWA: 500 ppm | STEL: 3000 mg/m$^3$<br>STEL: 1260 ppm<br>TWA: 2400 mg/m$^3$<br>TWA: 1000 ppm |

| Chemical Name | NIOSH IDLH |
|---|---|
| Titanium dioxide | 5000 mg/m$^3$ |
| Acetone | 2500 ppm |

**Engineering Measures** Do not allow ventilation equipment to draw material odors indoors..

**Personal Protective Equipment**
**Eye/face Protection** Safety glasses with side-shields.

| | |
|---|---|
| **Skin Protection** | Long sleeved clothing. Impervious gloves. |
| **Respiratory Protection** | In case of insufficient ventilation wear suitable respiratory equipment. |

**Hygiene Measures**
Wash hands before breaks and at the end of workday. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| **Appearance** | White | |
| **Odor** | Petroleum distillates | |
| **Physical State** | Liquid | |
| **pH** | Not available | |
| **Flash Point** | 78°F / 26°C | |
| **Autoignition Temperature** | 932°F | |
| **Boiling Point/Range** | 250.0 -512.6°F | |
| **Freezing Point** | Not available | |
| **Flammability Limits in Air** | **Lower** .9 | **Upper** 10.5 |
| **Explosive Properties** | Not available | |
| **Oxidizing Properties** | Not available | |
| **Evaporation Rate** | .100 (ether = 1) | |
| **Vapor Pressure** | 5.3 @ 20 C mmHg @ °F | |
| **Vapor Density** | 6.2 | |
| **Specific Gravity** | 1.26 | |
| **Density** | 10.6173 | |
| **Water Solubility** | Not available | |
| **Volatiles** | 19.9 (%WT) | |
| **VOC Content** | 46.8 g/L | |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability** | Stable under recommended storage conditions. |
| **Conditions to Avoid** | Heat, flames and sparks. |
| **Incompatible Materials** | Strong oxidizing agents. Water. Amines. Bases. Alcohols. |
| **Hazardous Decomposition Products** | Organic materials. Carbon dioxide (CO2). Carbon monoxide. Hydrocarbons. Nitrogen oxides (NOx). |
| **Possibility of Hazardous Reactions** | None under normal processing |

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**

**Component Information**

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Titanium dioxide | 10000 mg/kg Rat | | |
| Toluene diisocyanate | 3360 mg/kg Rat | 10000 mg/kg Rabbit | 0.1 mg/L Rat 4 h<br>13.9 ppm Rat 4 h<br>66 ppm Rat 1 h |

| | | | |
|---|---|---|---|
| Petroleum naphtha, light aromatic | 8400 mg/kg Rat | 2000 mg/kg Rabbit | 3400 ppm Rat 4 h<br>5.2 mg/L Rat 4 h |
| Acetone | 1800 mg/kg Rat | 20000 mg/kg Rabbit | 76 mg/L Rat 4 h |

**Chronic Toxicity**

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA | Mexico |
|---|---|---|---|---|---|
| Titanium dioxide | | Group 2B | | X | |
| Toluene diisocyanate | | Group 2B | Reasonably Anticipated | X | |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
No information available.

Petroleum naphtha, light aromatic

**Water Flea Data**
*Daphnia magna EC50=6.14 mg/L (48 h)*

Acetone

**Microtox Data**
*Photobacterium phosphoreum EC50=14500 mg/L (15 min)*
**Water Flea Data**
*water flea EC50=0.0039 mg/L (48 h)*
*Daphnia magna EC50=12600 mg/L (48 h)*
*water flea EC50=12700 mg/L (48 h)*

**Persistence/Degradability** Not available

**Bioaccumulation/ Accumulation** Not available

**Mobility in Environmental Media** Not available

Acetone

**log Pow =** -0.24

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method** Dispose of in accordance with local regulations.

**Contaminated Packaging** Empty containers should be taken for local recycling, recovery or waste disposal.

**US EPA Waste Number** D001

| Chemical Name | RCRA |
|---|---|
| Toluene diisocyanate - 26471-62-5 | waste number U223 |

## 14. TRANSPORT INFORMATION

**DOT**

| | |
|---|---|
| **Proper Shipping Name** | Paint |
| **Hazard Class** | 3 |
| **UN-No** | UN1263 |
| **Packing Group** | III |
| **Description** | Paint ,3,UN1263,PG III |

**TDG**

| | |
|---|---|
| **Proper Shipping Name** | Paint |
| **Hazard Class** | 3 |
| **UN-No** | UN1263 |
| **Packing Group** | III |

**MEX**

| | |
|---|---|
| **Hazard Class** | 3 |
| **UN-No** | UN1263 |
| **Description** | UN1263 Pintura,3, |

**ICAO**

| | |
|---|---|
| **UN-No** | UN1263 |
| **Proper Shipping Name** | Paint |
| **Hazard Class** | 3 |
| **Packing Group** | III |
| **Description** | Paint,3,UN1263,PG III |

**IATA**

| | |
|---|---|
| **UN-No** | UN1263 |
| **Hazard Class** | 3 |
| **Packing Group** | III |
| **ERG Code** | 3L |
| **Description** | UN1263,Paint related material,3,PG III |

**IMDG/IMO**

| | |
|---|---|
| **Hazard Class** | 3 |
| **UN-No** | UN1263 |
| **Packing Group** | III |
| **EmS No.** | F-E, _S-E_ |
| **Description** | UN 1263, Paint, Class 3, PG III, Flamable Liquid |

## 15. REGULATORY INFORMATION

**International Inventories**

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | CHINA | KECL | PICCS | AICS |
|---|---|---|---|---|---|---|---|---|---|---|
| Titanium dioxide | X | X | - | X | - | X | X | X | X | X |
| Toluene diisocyanate | X | X | - | X | - | X | X | X | X | X |
| Petroleum naphtha, light aromatic | X | X | - | X | - | - | X | X | X | X |
| Acetone | X | X | - | X | - | X | X | X | X | X |

**TSCA** Complies

| | |
|---|---|
| **DSL** | Does not Comply |
| **NDSL** | Does not Comply |
| **EINECS** | Does not Comply |
| **ELINCS** | Does not Comply |
| **ENCS** | Does not Comply |
| **CHINA** | Complies |
| **KECL** | Complies |
| **PICCS** | Does not Comply |
| **AICS** | Complies |

**USA**

**Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

| Chemical Name | SARA 313 - Threshold Values |
|---|---|
| Toluene diisocyanate (CAS #: 26471-62-5) | 0.1% |

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**
This product does not contain any HAPs.

**State Regulations**

**California Proposition 65**
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

| Chemical Name | CAS-No | Category | Type |
|---|---|---|---|
| Toluene diisocyanate | 26471-62-5 | Carcinogen | |

**State Right-to-Know**

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| Titanium dioxide | X | X | X | | X |
| Toluene diisocyanate | X | | X | | |
| Acetone | X | X | X | | X |

**Canada**

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.**

**WHMIS Hazard Class**
B3 Combustible liquid
D2A Very toxic materials
D2B Toxic materials

| Chemical Name | NPRI |
|---|---|
| Toluene diisocyanate | X |

## 16. OTHER INFORMATION

| | |
|---|---|
| **Preparation Date** | 19-Dec-2006 |
| **Revision Date** | 11-Feb-2011 |
| **Revision Summary** | Not available |

Disclaimer

**The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.**

**End of MSDS**