Section 1: Identification

Product Identifier
Mixture

Product Name
Trade Name: Red Hot De-Icer 11oz. Aerosol
PN (Part Number): 234633

Relevant identified uses of the substance or mixture and uses advised against
- De-Icer
- Consumer end use

Details of the supplier of the safety data sheet

Manufacturer
SPLASH Products
51 E. Maryland Ave.
St. Paul, MN 55117
Phone: (651) 489-8211

Emergency telephone number
1-800-535-5053

Section 2: Hazard(s) 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
Flammable Aerosol, Category 2
Compressed gas
Acute toxicity, Oral Category 3
Acute toxicity, Dermal Category 3
Mutagen, Category 1B
Carcinogen, Category 1A

Specific Target Organ Toxicity (STOT) – Single Exposure Category 1

GHS label elements

Hazard pictograms

Page 1 of 11
**Signal word-DANGER**

**Hazard statements**

Flammable aerosol
Contains gas under pressure; may explode if heated
Toxic if swallowed or in contact with skin
May cause genetic defects
May cause cancer
Causes damage to organs

**Precautionary statements**

**Prevention**

Obtain special instructions
Do not handle until all safety precautions have been read and understood
Keep away from heat, sparks, open flames, hot surfaces. –No smoking
Do not spray on an open flame or other ignition source
Pressurized container: Do not pierce or burn, even after use
Do not breathe dust, fumes, gas, mist, vapor spray
Wash affected areas thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Take off contaminated clothing and wash before use

**Response**

IF SWALLOWED: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. Call a POISON CONTROL CENTER, doctor if you feel unwell.

IF ON SKIN (or hair): Wash with soap and water. Get medical attention if irritation develops. Cold water may be used.

IF IN EYES: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. Cold water may be used. Get medical attention immediately.

IF EXPOSED or CONCERNED:
Immediately call a POISON CENTER or a doctor/physician.

**Storage**

Store in a well-ventilated place, locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**Disposal**

Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified**

Contains gas under pressure; may explode if heated.
<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>50-70</td>
<td>67-56-1</td>
</tr>
<tr>
<td>Petroleum gases, liquefied, sweetened</td>
<td>10-30</td>
<td>68476-86-8</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>1-5</td>
<td>107-21-1</td>
</tr>
</tbody>
</table>

**Section 4: First Aid Measurements**

**Description of necessary first aid measures**

General: If exposed or concerned: Get medical advice/attention. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a POISON CENTER or doctor/physician.

Eye contact: Check for and remove any contact lenses if present and easy to do. In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. Cold water may be used. Get medical attention immediately.

Inhalation: Bring accident victims out into the fresh air. Call a physician immediately in severe cases or if recovery is not rapid.

Skin contact: After contact with skin, wash or shower immediately with plenty of soap and water. Remove contaminated clothing and wash before reuse. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband.

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

**Potential acute health effects**

**Injuries**

May damage fertility or the unborn child. May cause genetic defects. Causes damage to organs.

**Eye contact**

Causes serious eye damage.

**Inhalation**

Shortness of breath. May cause cancer by inhalation.

**Skin contact**

Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.

**Ingestion**

Fatal if swallowed. Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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

**Notes to physician**

No additional information available.

**Specific treatments**

N/A

**Protection of first-aiders**

N/A

**See toxicological information (Section 11)**

**Section 5: Fire Fighting Measures**

**Extinguishing media**

**Suitable extinguishing media**

SMALL FIRE: Use DRY chemical powder, CO₂ or appropriate foam.
LARGE FIRE: Use water spray, sand, fog or foam.

Unsuitable extinguishing media
Do not use water jet.

Specific hazards arising from the chemical
Highly flammable liquid and vapor. Extremely flammable aerosol. May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Hazardous thermal decomposition products/Products of combustion
No information available.

Special protective actions for fire fighters
Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire reaches explosives. Evacuate area.

Special protective equipment for fire-fighters
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Other information
Aerosol level 2

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
No naked lights. No smoking. Isolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental precautions
Methods and materials for containment and cleaning up:

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including: the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Notify authorities if liquid enters sewers or public waters. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

Section 7: Handling and Storage

Precautions for safe handling

Protective measures, advice on general occupational hygiene and conditions for safe storage, including any incompatibilities:

Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or burn, even after use.

No naked lights. Keep away from heat sources, sparks, direct sunlight, open flames, hot surfaces.
– No smoking.

Ground or bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting, etc. equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fumes, gas, mist, vapors or spray. Wash thoroughly after handling.

Do not eat, drink or smoke when using this product. Wear protective gloves, clothing, and eye and face protection. Keep container tightly closed in a cool, well-ventilated place. Do not expose to temperatures exceeding 50°C/122°F.
Keep container tightly closed. Keep only in the original container. Store in a well-ventilated area. Keep cool. Keep in an area suitable for flammable liquids.

Incompatible with strong bases and strong acids.

### Section 8: Exposure Controls/Personal Protection

#### Control parameters

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Occupational exposure limits</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>ACGIH Ceiling</td>
<td>100 mg/m³</td>
</tr>
<tr>
<td>Petroleum gases, Liquefied, sweetened</td>
<td>ACGIH (TWA) 1000 ppm (STEL) N/A</td>
<td>OSHA (TWA) 1000 ppm; (STEL) 1800 mg/m³ N/A</td>
</tr>
<tr>
<td>Methanol</td>
<td>ACGIH Ceiling</td>
<td>1000 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH (TWA)</td>
<td>200 ppm (STEL) 250 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA (TWA)</td>
<td>200 ppm (STEL) N/A</td>
</tr>
<tr>
<td></td>
<td>260 mg/m³</td>
<td>325 mg/m³</td>
</tr>
<tr>
<td></td>
<td>260 mg/m³</td>
<td>260 mg/m³</td>
</tr>
</tbody>
</table>

#### Appropriate engineering controls and Environmental exposure controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

#### Individual protection measures

##### Hygiene measures

Do not eat, drink or smoke during use.

##### Eye/face protection: Use chemical safety goggles or glasses.

##### Skin protection

**Hand protection and Body protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

##### Other skin protection

Wash hands and other exposed areas with mild soap and water before eating or drinking. Avoid all unnecessary exposure.

##### Respiratory protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

**Respirator Type(s) [NIOSH Approved]:** If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, Glycerin, etc.) are present, use a NIOSH
type R or P filter. For emergencies or instances where the exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in Oxygen-deficient atmospheres.

Section 9: Physical and Chemical Properties

Appearance
Physical state: Gas
Odor: Characteristic
Odor threshold: Not determined
pH: No data available
Specific Gravity: 0.834
Melting point: -98°C
Boiling point: 65°C
Flash point: -96°C
Evaporation rate (BuAc=1): No data available
Flammability (solid, gas): No data available
Lower and upper explosive (flammable) limits: LEL 6%, UEL 36%
Vapor pressure: No data available
Vapor density (Air=1): No data available
Solubility: Soluble in water and alcohols
Partition coefficient: n-octanol/water: Not Established
Auto-ignition temperature: 455°C
Decomposition temperature: No data available
Viscosity: No data available
VOC content: 84.93%

Section 10: Stability and Reactivity

Reactivity
No additional information available.

Chemical stability
Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture. Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.
Possibility of hazardous reactions
Not established.
Conditions to avoid
Direct sunlight. Extremely low temperatures or temperatures above the flash point. Avoid excessive heat, open flame or other sources of ignition.
Incompatible materials
Strong acids
Strong bases
Hazardous decomposition products
May release flammable gases, toxic fumes, carbon monoxide and carbon dioxide.

Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity
<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>Acute toxicity, oral (male rat)</td>
<td>LD50 &gt; 2528 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute toxicity, dermal</td>
<td>LD50 = 17100 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute toxicity, inhalation (rat)</td>
<td>LC50 = 128 mg/L/4 hour air</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>Acute toxicity, oral (male rat)</td>
<td>LD50 = 7712 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute toxicity, dermal</td>
<td>LD50 = 3500 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute toxicity, inhalation (rat)</td>
<td>LC50 = 2.5 mg/L/6 hour air</td>
</tr>
</tbody>
</table>

**Summary Comments:**

**Sensitization**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hot De-Icer Aerosol</td>
<td></td>
<td>No evidence of sensitization effect</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hot De-Icer Aerosol</td>
<td></td>
<td>May cause cancer</td>
</tr>
</tbody>
</table>

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hot De-Icer Aerosol</td>
<td>Causes damage to organs</td>
<td></td>
</tr>
</tbody>
</table>

**Specific target organ toxicity (repeated exposure)**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hot De-Icer Aerosol</td>
<td>Not classified based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
</tbody>
</table>

**Aspiration hazard**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hot De-Icer Aerosol</td>
<td>Not classified based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
</tbody>
</table>

**Potential acute health effects**

**Eye contact:** Causes serious eye damage.

**Inhalation:** Shortness of breath. May cause cancer by inhalation.

**Skin contact:** Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.

**Ingestion:** Fatal if swallowed. Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact:** Eye irritation.

**Inhalation:** Shortness of breath.

**Skin contact:** Skin irritation.
**Ingestion:** May irritate the gastrointestinal tract, cause nausea, and vomiting.

**Potential chronic health effects (Methanol)**

- **Carcinogenicity:** May cause cancer.
- **Mutagenicity:** May cause genetic defects. Based on available data, the classification criteria are not met.
- **Teratogenicity:** No data available.
- **Developmental effects:** No data available.
- **Fertility effects:** No data available.

**Numerical measures of toxicity**

**Acute toxicity estimates**

Toxic by inhalation, in contact with skin and if swallowed. Amounts as small as 30-250 mL of pure methanol may be fatal.

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**Section 12: Ecological Information**

**Toxicity**

**Acute Fish toxicity: (Ethylene glycol)**

LC50 - Oncorhynchus mykiss (rainbow trout) – 40,761 mg/l - 96 h
LC50 – Pimephales promelas – 53,000 mg/l - 96 h

**Acute Fish toxicity: (Methanol)**

LC50 - Oncorhynchus mykiss (rainbow trout) – 10,800 mg/l - 96 h
LC50 – Lepomis macrochirus – 15,400 mg/l - 96 h

**Acute toxicity for daphnia: (Ethylene glycol)**

EC50 - Daphnia magna (Water flea) – 10,000 mg/l - 24 h

**Acute toxicity for daphnia: (Methanol)**

EC50 - Daphnia magna (Water flea) – 10,000 mg/l - 48 h

**Acute toxicity for algae: (Ethylene glycol)**

EC50 - Scenedesmus quadricauda (fresh water algae) – 10,000 mg/l - 96 h

**Acute toxicity for algae: (Methanol)**

EC50 - Scenedesmus quadricauda (fresh water algae) – 8,000 mg/l - 168 h

**Acute bacterial toxicity: (Methanol)**

Pseudomonas putida – 6,600 mg/L – 16 h

**Ecotoxicology Assessment: (Aerosol De-Icer)**

Material is expected to be slightly toxic to aquatic life.

**Persistence and degradability**

**Biodegradability: (Methanol)**

When released into the soil, this material is expected to readily biodegrade. When released into water, this material is expected to readily biodegrade.

**Stability in water: (Methanol)**

When released into the soil, this material is expected to quickly evaporate. When released into the soil, this material is expected to leach into groundwater.

**Photodegradation: (Methanol)**

No data available
Partition coefficient n-octanol/water (log $P_{ow}$): (Methanol) = -0.77 (Experimental value)
Biochemical Oxygen Demand (BOD) (Methanol) = 0.6 – 1.2 g O$_2$/g substance
Theoretical Oxygen Demand (ThOD) (Methanol) = 1.5 g O$_2$/g substance

Partition coefficient n-octanol/water (log $P_{ow}$): (Ethylene glycol) = -1.34 (Experimental value)
Biochemical Oxygen Demand (BOD) (Ethylene glycol) = Not established
Theoretical Oxygen Demand (ThOD) (Ethylene glycol) = Not established

Bioaccumulative potential
Bioaccumulation: (Ethylene glycol)
Leuciscus idus (fish) – 10 (72 h)
Algae – 190 (24 h)
Bioaccumulation factor (BCF) : <500 (Low potential for bioaccumulation)

Bioaccumulation: (Methanol)
Leuciscus idus (fish) – <10 (72 h)
Bioaccumulation factor (BCF) : <500 (Low potential for bioaccumulation)

Mobility in soil:
Ethylene glycol = 0.048 N/m (20°C)
Methanol = 0.023 N/m (20°C)

Other adverse effects:
Avoid release in the environment.

Section 13: Disposal Considerations

Disposal methods
Dispose in accordance with applicable international, national and local laws, ordinances and statutes. Container under pressure. Do not drill or burn even after use. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Handle empty containers with care because residual vapors are flammable. Flammable vapors may accumulate in the container.

Hazardous waste due to toxicity. Avoid release to the environment.

Section 14: Transport Information

In accordance with ADR/RID/IMDG/IATA/ADN

UN Number: UN1950
UN Proper Shipping Name: Aerosols
Transport hazard Class(es): 2.1
Packing Group: Limited Quantity

US DOT (ground) Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)
UN1950, Aerosols, 2.1, Limited Quantity

IMO Maritime Transport IMDG/GGVSea (water)
UN1950, Aerosols, 2.1, Limited Quantity

Air Transport ICAO-TI and IATA-DGR (air)
UN1950, Aerosols, 2.1, Limited Quantity

**Hazard Labels (DOT):** 2.2 – Non-Flammable gas  
6.1 – Poison Inhalation Hazard

**DOT Packaging Exceptions (49 CFR 173.xxx):** 306
**DOT Packaging Non Bulk (49 CFR 173.xxx):** None
**DOT Packaging Bulk (49 CFR 173.xxx):** None

**Overland transport:** No supplementary information available.

**Transport by sea**

**DOT Vessel Stowage Location:** A – The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

**DOT Vessel Stowage Other:** 48 – Stow “away from” sources of heat, 87 – Stow “separated from” Class 1 (explosives) except Division 14, 126 – Segregation same as for Class 9, miscellaneous hazardous materials.

**Air transport**

**DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27):** Forbidden
**DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75):** Forbidden

---

**Section 15: Regulatory Information**

**Chemical Inventory Status-Part 1 (Regulatory information given based on Methanol; most hazardous and most concentrated component of formula)**

<table>
<thead>
<tr>
<th>Ingredient (CAS#)</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hot De-Icer Aerosol, Methanol (67-56-1)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Chemical Inventory Status-Part 2 (Regulatory information given based on Methanol; most hazardous and most concentrated component of formula)**

<table>
<thead>
<tr>
<th>Ingredient (CAS#)</th>
<th>Korea</th>
<th>Canada</th>
<th>Canada</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DSL</td>
<td>NDSL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Hot De-Icer Aerosol, Methanol (67-56-1)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Federal, State & International Regulations-Part 1 (Regulatory information given based on Methanol; most hazardous and most concentrated component of formula)**

<table>
<thead>
<tr>
<th>Ingredient (CAS#)</th>
<th>SARA 302</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RQ</td>
<td>TPQ</td>
</tr>
<tr>
<td>Red Hot De-Icer Aerosol, Methanol (67-56-1)</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Federal, State & International Regulations-Part 2 (Regulatory information given based on Methanol; most hazardous and most concentrated component of formula)**

<table>
<thead>
<tr>
<th>Ingredient (CAS#)</th>
<th>RCRA</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CERCLA</td>
<td>261.33</td>
</tr>
<tr>
<td>Red Hot De-Icer Aerosol, Methanol (67-56-1)</td>
<td>5000 lb.</td>
<td>U154</td>
</tr>
</tbody>
</table>

**Chemical Weapons Convention:** No
**TSCA 12b:** No

Page 10 of 11
CDTA: No

**SARA 311/312:**
Acute: Yes,   Chronic: Yes,   Fire: Yes,   Pressure: Yes,   Reactivity: No
Mixture/Liquid
Australian Hazchem Code: 2PE
Poison Schedule: No information found

---

**Section 16: Other Information**

**History**

- **Date of issue:** 12/26/14
- **Version:** 1a
- **Revised Sections(s):** New

  **Prepared by:** Andrew Gioino, SPLASH PRODUCTS

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.