



Safety Data Sheet

Section 1. Identification

Product name : ALPHA® OM-338-T-HV Paste Flux
Product code : 158889
Product type : Solid.
Date of issue/Date of revision : March 14 2023.

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Section 2. Hazard identification

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 5
SKIN CORROSION/IRRITATION - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 4

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May be harmful if swallowed.
Causes mild skin irritation.
Causes serious eye damage.
May cause long lasting harmful effects to aquatic life.

Precautionary statements

Prevention : Wear eye or face protection. Avoid release to the environment.

Response : IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. If skin irritation occurs: Get medical advice or attention. 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.

Storage : Store locked up.

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

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Glycol Ether	30-40	-
Proprietary rosin	10-20	-
Proprietary Rosin/Resin	10-20	-
carboxylic acid derivative	1-10	-
Organic acid	1-10	-
Proprietary	1-10	-
Organic acid	1-10	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Chemical burns must be treated promptly by a physician.

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Section 4. First aid measures

- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes mild skin irritation.
- Ingestion** : May be harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : This material may cause long lasting harmful effects to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : 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, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 19 to 25°C (66.2 to 77°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Solid.
- Color** : Colorless to light yellow.
- Odor** : Acrid.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: >93.333°C (>200°F) [Tag Closed Cup]
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : ☒ Not applicable.
- Vapor pressure** : ☒ Not available.
- Relative vapor density** : ☒ Not applicable.
- Relative density** : Not available.
- Solubility** : Insoluble in the following materials: cold water and hot water.
- VOC** : 334.2 g/l
- Partition coefficient: n-octanol/water** : ☒ Not applicable.
- Auto-ignition temperature** : ☒ Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** : ☒ Not applicable.
- Flow time (ISO 2431)** : ☒ Not available.
- Particle characteristics**
- Median particle size** : ☒ Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatibility with various substances	: Slightly reactive or incompatible with the following materials: oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Glycol Ether	LD50 Oral	Rat - Female	2600 mg/kg	-
Proprietary rosin	LD50 Oral	Rat	>2000 mg/kg	-
Proprietary Rosin/Resin	LD50 Dermal	Rabbit	>2.5 g/kg	-
	LD50 Oral	Mouse	>3 g/kg	-
	LD50 Oral	Rat	>4 g/kg	-
carboxylic acid derivative	LD50 Oral	Rat	>2000 mg/kg	-
Organic acid	LD50 Dermal	Rabbit	>4940 mg/kg	-
	LD50 Oral	Rat	2210 mg/kg	-
Organic acid	LD50 Oral	Rat	2260 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Organic acid	Eyes - Severe irritant	Rabbit	-	750 Micrograms	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Organic acid	Category 3	-	Respiratory tract irritation
Proprietary	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Continued on next page

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Dermal contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes mild skin irritation.
Ingestion : May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : ☒ No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
<input checked="" type="checkbox"/> Oral	3205.99 mg/kg
Dermal	6124.19 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Glycol Ether	EC50 315 mg/l EC50 >100 mg/l LC50 564 mg/l	Algae Daphnia Fish	96 hours 48 hours 96 hours
Proprietary Rosin/Resin	LC50 60.3 mg/l	Fish	96 hours
Organic acid	Acute EC50 66 mg/l Acute EC50 88.4 mg/l Acute LC50 150 to 220 mg/l	Algae Daphnia Fish	72 hours 48 hours 96 hours
Proprietary	LC50 232 mg/l	Fish	96 hours
Organic acid	Acute EC50 374200 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Carboxylic acid derivative	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Glycol Ether	1.896	-	low
Proprietary rosin	6.04	-	high
Proprietary Rosin/Resin	3.42	-	low
Organic acid	-0.55	3.162	low
Organic acid	-0.59	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

China

SDS complies with the General Rules for Classification and Hazardous Communication of Chemicals GB-13690-2009, GB-30000 series, and GB/T 16438-2008.

List of Goods banned for Importing

None of the components are listed.

Drug Precursors Requiring an Import/Export License

None of the components are listed.

Inventory of Hazardous Chemicals

None of the components are listed.

List of Explosive Precursors

None of the components are listed.

List of Goods banned for Exporting

None of the components are listed.

List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

Catalogue and classification of drug precursor chemicals

None of the components are listed.

Inventory of Highly Toxic Articles

None of the components are listed.

Catalogue of Hazardous Chemicals of Priority Management

None of the components are listed.

Catalogue of Occupational Disease Hazard Factors - Dust

None of the components are listed.

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Section 15. Regulatory information

Catalogue of Occupational Disease Hazard Factors - Chemical Factors

None of the components are listed.

Other China Regulations

Catalogue of Hazardous Chemicals (2015)
Classification & code of dangerous goods (GB 6944-2012)
Production Safety Law of the People's Republic of China
Law of the People's Republic of China on Prevention and Control of Occupational Diseases
Environmental Protection Law of the People's Republic of China
Regulation on Work Safety Licenses
Classification of transportation packing type of dangerous goods GB/T 15098-2008
General rules for classification and hazardous communication of chemicals GB 13690-2009
List of Dangerous Goods GB12268-2012
Occupational Exposure Limits (OELs) for hazardous chemicals GBZ 2.1-2007
Hazardous Chemicals Safety Management Ordinance China (2013 revised)
Safety data sheet for chemical products: content & order of sections GB/T 16483-2008
Rules for classification and labelling of chemicals GB30000-2013
Guidance on the compilation of safety data sheet for chemical products GB/T 17519-2013

Japan

Fire Service Law

None of the components are listed.

ISHL

Not applicable.

None of the components are listed.

None of the components are listed.

None of the components are listed.

Guideline for Preventing Health Hazard by chemical substances (Carcinogenicity)

None of the components are listed.

Mutagen

None of the components are listed.

Chemical Substances Control Law (CSCL)

None of the components are listed.

Poisonous and Deleterious Substances

None of the components are listed.

Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

Republic of Korea

A. Regulation according to ISHA

ISHA article 117 : None of the components are listed.
(Harmful substances
prohibited from
manufacture)

ISHA article 118 : None of the components are listed.
(Harmful substances
requiring permission)

Section 15. Regulatory information

Article 2 of Youth Protection Act on Substances Hazardous to Youth : Not applicable.

Exposure Limits of Chemical Substances and Physical Factors

None of the components have an OEL.

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors) : None of the components are listed.

ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement) : None of the components are listed.

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) : None of the components are listed.

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : None of the components are listed.

B. Regulation according to Chemicals Control Act

CCA Article 11 (TRI) : None of the components are listed.

Article 18 Prohibited (K-Reach Article 27) : None of the components are listed.

Article 19 Subject to authorization (K-Reach Article 25) : ☒ None of the components are listed.

Article 20 Toxic Chemicals (K-Reach Article 20) : Not applicable

Ingredient name	CAS number	%
None of the components are listed.		

Article 20 Restricted (K-Reach Article 27) : None of the components are listed.

CCA Article 39 (Accident Precaution Chemicals) :

Ingredient name	CAS number	%
None of the components are listed.		

Existing Chemical Substances Subject to Registration :

Ingredient name	CAS number	%
None of the components are listed.		

C. Dangerous Materials Safety Management Act : Not available.

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

Section 15. Regulatory information

Malaysia

Poison Act, Poison List - Schedule 1

Not applicable.

Poison Act, Poison List - Schedule 3

Not applicable.

Singapore

Singapore - hazardous chemicals under government control

None.

Taiwan

SDS complies with the Regulation of Labeling and Hazard Communication of Hazardous Chemicals

TCCSCA List of toxic chemicals

Not applicable.

TCCSCA List of concerned chemicals

Not applicable.

List of chemicals reputed to
be a "threat of imminent
danger"

None of the components are listed.

OSHA Article 29 : None of the components are listed.

OSHA Article 30 : None of the components are listed.

Priority management chemicals, Article 2

Chemical substances possessing physical hazards or health hazards (Article 2.2 (II))

Ingredient name	Name on list	Concentration
Organic acid	Organic acid	≤10

Regulation Governing Designation and Handling Permission of
Controlled Chemicals : ☒ Not applicable

International regulations

Inventory list

Australia : Not determined.

Canada : ☒ At least one component is not listed in DSL but all such components are listed in NDSL.

China : ☒ Not determined.

Japan : Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : At least one component is not listed.

Taiwan : All components are listed or exempted.

United States : All components are listed or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 3/14/2023

Date of previous issue : 1/24/2020

Version : 2.03

Regulatory Affairs Department
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Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 5	Calculation method
SKIN CORROSION/IRRITATION - Category 3	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 4	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

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 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.