

Material Safety Data Sheet

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2024)

ZChek-PTW Aerosol

Section 1: Product and Company identification

1.1 Product Name: ZChek- PTW Aerosol**1.2 Product Use:** Liquid Penetrant Inspection Process.**1.3 Manufacturer Information:** ZChem Specialities Private Limited.

Sy No11/2/6, Puradapalya village, Tavarekere Hobli Bangalore, Karnataka-562130, India

1.4 Supplier : ZChem Specialities USA LLC

1115 E cottonwood Ln, Suite 150, Casa Grande, AZ 85122

1.5 Emergency Telephone Number: +91-9959963334

Section 2: Hazards Identification

OSHA/HCS STATUS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Aerosol 1; H222, H229, Flammable aerosol. Pressurised container: May burst if heated.

Asp. Tox. 1; H304, May be fatal if swallowed and enters airways.

Skin Irrit. 2; H315, Causes skin irritation.

Eye Dam. 1; H318, Causes serious eye damage.

2.2 Label Elements**Hazardous symbol****ZChek**

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Signal word	: Danger
Hazard statement(s)	: Flammable aerosol. Pressurised container: May burst if heated. (H222, H229) May be fatal if swallowed and enters airways. (H304) Causes skin irritation. (H315) Causes serious eye damage. (H318)
Precautionary statement(s)	:
General	: Not applicable.
Prevention	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210) Do not spray on an open flame or other ignition source. (P211) Do not pierce or burn, even after use. (P251) Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection/protective gloves/protective clothing. (P280)
Response	: IF SWALLOWED: Immediately call a POISON CENTER/doctor. (P301+P310) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) Immediately call a POISON CENTER/doctor. (P310) Do NOT induce vomiting. (P331) IF ON SKIN: Gently wash with plenty of soap and water. (P302+P350) If skin irritation occurs: Get medical advice/attention. (P332+P313) Take off contaminated clothing and wash it before reuse. (P362+P364))
Storage	: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F. (P410+P412) Store in a well-ventilated place. (P403)
Disposal	: Dispose of contents/container in accordance with local regulation (P501)
Hazards not otherwise classified (HNOC)	: May displace oxygen and cause rapid suffocation.
Additional labelling	: 4.55 % of the mixture consists of ingredients of unknown toxicity.

2.3 OTHER HAZARDS

Additional warnings	: In the event of leaks, high concentrations of gases can quickly form. They can be toxic, asphyxiating, or explosive.
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Section 3: Information and Ingredients

3.1. SUBSTANCES

Not applicable. This product is a mixture.

3.2. MIXTURES

Product/substance	Identifiers	%w/w	Classification	Note
Distillates (petroleum), hydrotreated light	CAS No.: 64742-47-8	25-40%	Asp. Tox. 1, H304	[19]
Petroleum gases, liquefied sweetened	CAS No.: 68476-86-8	25-40%	Flam.Gas 1A, H220 Press.Gas(liq), H280	(19)
Alcohols, C12-15, ethoxylated propoxylated	CAS No.: 68551-13-3	10-15%	Acute Tox. 4, H302 Eye Dam. 1, H318	[19]
Alcohols, C12-14 secondary, ethoxylated	CAS No.: 84133-50-6	5-10%	Skin Irrit. 2, H315 Eye Dam. 1, H318	[19]
N-(2 hydroxypropyl)oleamide	CAS No.: 111-05-7	1-3%	Skin Irrit. 2, H315 Eye Irrit. 2, H319	
p-menth-1-en-8-ol	CAS No.: 98-55-5	1-3%	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319	
Hydrocarbons, C10-C13, aromatics, < 1 naphthalene	CAS No.:	1-3%	Asp. Tox. 1, H304	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

OTHER INFORMATION

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

Section 4: First Aid Measures

4.1. DESCRIPTION OF FIRST AID MEASURES

General information : If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

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| Inhalation | : Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her. |
| Skin contact | : Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.
If skin irritation occurs: Get medical advice/attention. |
| Eye contact | : If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport. |
| Ingestion | : IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do not induce vomiting! If vomiting occurs, keep head facing down so that vomit does not get into the lungs. Call a doctor or ambulance. Symptoms of chemical pneumonia can appear after several hours. People who have swallowed the product should therefore be kept under medical attention for at least 48 hours. |
| Burns | : Rinse with water until pain stops then continue to rinse for 30 minutes. |

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

This product contains substances that can cause chemical pneumonia if swallowed.

Symptoms of chemical pneumonia may appear after several hours.

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

IF exposed or concerned:

Get medical advice/attention.

INFORMATION TO MEDICS

Bring this safety data sheet or the label from this product

Section 5: Fire Fighting Measures

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media : Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media : Waterjets should not be used, since they can spread the fire.

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5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Flammable aerosol. Pressurised container. In a fire or if heated, a pressure increase will occur and the container may burst.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health.

Closed containers, which are exposed to fire, should be cooled with water.

Do not allow fire extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced.

These are: Nitrogen oxides (NO₂) Carbon oxides (CO / CO₂)

5.3. ADVICE FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact. U

Section 6: Accidental Release Measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Accidental releases always pose a serious risk of fire or explosion.

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. REFERENCE TO OTHER SECTIONS

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

Section 7: Handling and Storage

7.1 PRECAUTIONS FOR SAFE HANDLING

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

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Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Must be stored in a cool and well-ventilated area, away from possible sources of ignition. Pressurized gas packs (spray cans, aerosol cans) must be stored behind a wire mesh, which allows gases to escape and holds back packs flying around.

Recommended storage material	: Always store in containers of the same material as the original container.
Storage conditions	: No specific requirements
Incompatible materials	: Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. SPECIFIC END USE(S)

This product should only be used for applications quoted in section 1.2.

Section 8: Exposure Control

8.1. CONTROL PARAMETERS

Petroleum gases, liquefied, sweetened

Long term exposure limit (OSHA Table Z-1) (ppm): 1000

Soybean oil

Long term exposure limit (ACGIH TLV) (mg/m³): 10

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

8.2. EXPOSURE CONTROLS

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations	: Smoking, drinking and consumption of food is not allowed in the work area.
Exposure scenarios	: There are no exposure scenarios implemented for this product.
Exposure limits	: Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.
Appropriate technical measures	: Ensure that eyewash stations and safety showers are located within easy reach.
Hygiene measures	: Take off contaminated clothing and wash it before reuse.

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Measures to avoid environmental exposure : Keep damming materials near the workplace. If possible, collect spillage during work.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

Generally : Use only protective equipment with a recognized certification mark, e.g. the UL mark.

Respiratory Equipment:

Type	Class	Colour	Standards	
In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.				

Skin protection :

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

Hand protection :

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,38	> 480	EN374-2, EN374-3, EN388	

Eye protection :

Type	Standards	
Safety glasses	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Aerosol
 Color : Red
 Odor : Mild
 Odor threshold (ppm) : No data available

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pH	: Neutral
Density (g/cm ³)	: No data available
Relative density	: No data available
Kinematic viscosity	: No data available
Particle characteristics	: Not applicable - product is an aerosol

PHASE CHANGES

Melting point/freezing point (°F)	: Not applicable - product is an aerosol
Softening point/range (°F)	: Does not apply to aerosols.
Boiling point (°F)	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Decomposition temperature (°F)	: No data available

DATA ON FIRE AND EXPLOSION HAZARDS

Flash point (°F)	: Not applicable - product is an aerosol
Flammability (°F)	: The material is ignitable.
Auto-ignition temperature (°F)	: No data available
Explosion limits (% v/v)	: No data available.

SOLUBILITY

Solubility in water	: No data available
n-octanol/water coefficient (LogKow)	: No data available
Solubility in fat (g/L)	: No data available

9.2. OTHER INFORMATION

Evaporation rate (n butylacetate = 100)	: No data available
VOC (g/L)	: 412.84
Other physical and chemical parameters	: No data available
Oxidizing properties	: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No data available.

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10.2. CHEMICAL STABILITY

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. POSSIBILITY OF HAZARDOUS REACTIONS, INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCIES

None known.

10.4. CONDITIONS TO AVOID

Avoid static electricity. Do not expose to any forms of heat (e.g. solar radiation).
May lead to excess pressure.

10.5. INCOMPATIBLE MATERIALS

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY

Product/substance	: Distillates (petroleum), hydrotreated light
Species	: Rat
Route of exposure	: Oral
Test	: LD50
Result	: >5000 mg/kg

Product/substance	: Distillates (petroleum), hydrotreated light
Species	: Rabbit
Route of exposure	: Dermal
Test	: LD50
Result	: >5000 mg/kg

Product/substance	: Distillates (petroleum), hydrotreated light
Species	: Rat
Route of exposure	: Inhalation
Test	: LC50 (4 hours)
Result	: > 5000 mg/m ³

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Product/substance : Alcohols, C12-15, ethoxylated propoxylated
 Species : Rat
 Route of exposure : Oral
 Test : LD50
 Result : > 2000 mg/kg

Product/substance : Alcohols, C12-15, ethoxylated propoxylated
 Species : Rat
 Route of exposure : Dermal
 Test : LD50
 Result : 2000 mg/kg

Product/substance : Alcohols, C12-15, ethoxylated propoxylated
 Species : Rat
 Route of exposure : Oral
 Test : LD50
 Result : 8270 mg/kg

Product/substance : Alcohols, C12-14-secondary, ethoxylated
 Species : Rabbit
 Route of exposure : Dermal
 Test : LD50
 Result : > 2000 mg/kg

Product/substance : p-menth-1-en-8-ol
 Species : Rat
 Route of exposure : Oral
 Test : LD50
 Result : 4300 mg/kg

Product/substance : p-menth-1-en-8-ol
 Species : Rabbit
 Route of exposure : Dermal
 Test : LD50
 Result : > 3000 mg/kg

Product/substance : Hydrocarbons, C10-C13, aromatics, < 1% naphthalene
 Test method : OECD 402
 Species : Rabbit
 Route of exposure : Dermal
 Test : LD50
 Result : >2000 mg/kg bw

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Product/substance : Hydrocarbons, C10-C13, aromatics, < 1% naphthalene
Test method : OECD 401
Species : Rat
Route of exposure : Oral
Test : LD50
Result : >6318 mg/kg bw

Product/substance : Hydrocarbons, C10-C13, aromatics, < 1% naphthalene
Test method : OECD 403
Species : Rat
Route of exposure : Inhalation
Test : LD50
Result : >4778 mg/L

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

SKIN CORROSION/IRRITATION

Product/substance Alcohols, C12-14-secondary, ethoxylated
Causes skin irritation.

SERIOUS EYE DAMAGE/IRRITATION

Product/substance Alcohols, C12-14-secondary, ethoxylated
Causes serious eye damage.

RESPIRATORY SENSITISATION

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

SKIN SENSITISATION

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

GERM CELL MUTAGENICITY

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

CARCINOGENICITY

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

REPRODUCTIVE TOXICITY

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

STOT-SINGLE EXPOSURE

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

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STOT-REPEATED EXPOSURE

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

ASPIRATION HAZARD

May be fatal if swallowed and enters airways.

LONG TERM EFFECTS

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

OTHER INFORMATION

None known

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Product/substance	: Alcohols, C12-15, ethoxylated propoxylated
Species	: Fish, Brachydanio rerio
Duration	: 96 hours
Test	: LD50
Result	: 1.4 mg/L

Product/substance	: Alcohols, C12-15, ethoxylated propoxylated
Species	: Daphnia, Daphnia magna
Duration	: 48 hours
Test	: EC50
Result	: 3 mg/L

Product/substance	: Alcohols, C12-15, ethoxylated propoxylated
Species	: Algae
Test	: NOEC
Result	: 0.1-1 mg/L

Product/substance	: Alcohols, C12-15, ethoxylated propoxylated
Species	: Daphnia, Daphnia magna
Test	: NOEC
Result	: 0.1-1 mg/L

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Product/substance : Alcohols, C12-14-secondary, ethoxylated
Species : Pimephales promelas
Duration : 96 hours
Test : LC50
Result : 1 - < 10 mg/L

Product/substance : Alcohols, C12-14-secondary, ethoxylated
Test method : OECD 202
Species : Daphnia magna
Duration : 48 hours
Test : EC50
Result : 1 - < 10 mg/L

Product/substance : Alcohols, C12-14-secondary, ethoxylated
Species : Algae
Test : ErC50
Result : 2.01 mg/L

Product/substance : Alcohols, C12-14-secondary, ethoxylated
Species : Fish
Test : NOEC
Result : 0.87 mg/L

Product/substance : Alcohols, C12-14-secondary, ethoxylated
Species : Daphnia magna
Test : NOEC
Result : 0.2 mg/L

Product/substance : Hydrocarbons, C10-C13, aromatics, < 1% naphthalene
Test method : OECD 201
Species : Algae, Pseudokirchneriella subcapitata
Duration : 72 hours
Test : ErC50
Result : 3.8 mg/L

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Product/substance : Hydrocarbons, C10-C13, aromatics, < 1% naphthalene
Test method : QSAR
Species : Fish
Duration : 28 days
Test : NOEC
Result : 0.103 mg/L

Product/substance : Hydrocarbons, C10-C13, aromatics, < 1% naphthalene
Test method : OECD 211
Species : Crustacean
Duration : 21 days
Test : NOEC
Result : 0.179 mg/L

Product/substance : Hydrocarbons, C10-C13, aromatics, < 1% naphthalene
Test method : OECD 201
Species : Algae, Pseudokirchneriella subcapitata
Duration : 72 hours
Test : NOEC
Result : 0.179 mg/L

12.2. PERSISTENCE AND DEGRADABILITY

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

12.3. BIOACCUMULATIVE POTENTIAL

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

12.4. MOBILITY IN SOIL

No data available.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. OTHER ADVERSE EFFECTS

None known.

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SECTION 13: DISPOSAL CONSIDERATIONS

RCRA HAZARDOUS WASTE ("P" AND "U" LIST) (40 CFR 261)

None of the components are listed

SPECIFIC LABELLING

CONTAMINATED PACKING

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	UN / ID	UN proper shipping name	Hazard class(es)	PG*	Env**	Other information:
DOT	-	Consumables, Limited Quantity		-	No	See below for additional information.
IATA	UN1950	Aerosols, 2.1 (Limited Quantity)	Transport hazard class: 2.1	-	No	See below for additional information.
IATA	UN1950	Aerosols, Flammable	Transport hazard class: 2.1	-	No	See below for additional information.

* Packing group

** Environmental hazards

ADDITIONAL INFORMATION

This product is within scope of the regulations of transport of dangerous goods.

DOT / See - 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See -172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

14.1. SPECIAL PRECAUTIONS FOR USER

Not applicable.

14.2. TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS

No data available.

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SECTION 15: REGULATORY INFORMATION**15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE****15.2. U.S. FEDERAL REGULATIONS**

TSCA (the non-confidential portion)

Distillates (petroleum), hydrotreated light is listed
Petroleum gases, liquefied, sweetened is listed
Alcohols, C12-15, ethoxylated propoxylated is listed
Alcohols, C12-14-secondary, ethoxylated is listed
Soybean oil is listed
N-(2-hydroxypropyl)oleamide is listed p-menth-1-en-8-ol is listed

Clean Air Act

None of the components are listed

EPCRA Section 302

None of the components are listed

EPCRA Section 304

None of the components are listed

EPCRA section 313

None of the components are listed

CERCLA

None of the components are listed

Hazardous chemical inventory reporting:

This product is subject to Tier II reporting.

STATE REGULATIONS

California / Prop. 65:

See product label for Prop 65 Statement (if applicable)

Massachusetts / Right To Know Act:

None of the components are listed

New Jersey / Right To Know Act:

None of the components are listed

New York / Right To Know Act:

None of the components are listed

Pennsylvania / Right To Know Act:

Soybean oil is listed

NFPA

Health hazard: 2

Fire hazard: 4

Instability hazard: 0

15.4. RESTRICTIONS FOR APPLICATION

Restricted to professional users.

15.5. DEMANDS FOR SPECIFIC EDUCATION

No specific requirements.

15.6. ADDITIONAL INFORMATION

Not applicable.

15.7. CHEMICAL SAFETY ASSESSMENT

No

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15.8. SOURCES

OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: OTHER INFORMATION**FULL TEXT OF H-PHRASES AS MENTIONED IN SECTION 3**

H220, Extremely flammable gas.
H227, Combustible liquid
H280, Contains gas under pressure; may explode if heated.
H302, Harmful if swallowed.
H304, May be fatal if swallowed and enters airways.
H315, Causes skin irritation.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.

Disclaimer

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 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.

ZCUS/004, Issued on: 01-07-2026