

Material Safety Data Sheet

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

ZChek-EF9

Section 1: Product and Company identification

1.1 Product Name: ZChek- EF9

1.2 Product Use: Fluorescent 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

Skin Irrit. 2; H315, Causes skin irritation.

Eye Irrit. 2; H319, Causes serious eye irritation.

Repr. 2; H361d, Suspected of damaging the unborn child.

The hazards given in the SDS apply to the product at the full concentration. By diluting the product, the hazards will be reduced. It is up to the employer/user to determine the proper personal protection equipment and safety precautions when using diluted product.

2.2. Label Elements

Hazardous symbol

**ZChek**

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Signal word	: Warning
Hazard statement(s)	: Causes skin irritation. (H315) Causes serious eye irritation. (H319) Suspected of damaging the unborn child. (H361d)
Precautionary statement(s)	:
General	: Not applicable.
Prevention	: Obtain special instructions before use. (P201) Wash hands thoroughly after handling. (P264) Wear eye protection/protective gloves. (P280)
Response	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) IF exposed or concerned: Get medical advice/attention. (P308+P313) If eye irritation persists: Get medical advice/attention. (P337+P313) 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	: Not applicable.
Disposal	: Dispose of contents/container in accordance with local regulation (P501)

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
Alcohols, C6-12, ethoxylated propoxylated	CAS No.: 68937-66-6	25-40%	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[19]
2-methylpentane-2,4-diol	CAS No.: 107-41-5	25-40%	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d	

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Alcohols, C10-16, ethoxylated propoxylated	CAS No.: 69227-22-1	15-25%	Eye Irrit. 2, H319	(19)
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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.
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 immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
Ingestion	: If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.
Burns	: Not applicable.

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4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If eye irritation persists: 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.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR 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:

Carbon oxides (CO / CO₂)

5.3. ADVICE FOR FIREFIGHTERS

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

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Section 6: Accidental Release Measures**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Avoid direct contact with spilled substances.
Contaminated areas may be slippery.

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**

Avoid direct contact with the product.
Avoid contact during pregnancy and while nursing.
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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

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.

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Section 8: Exposure Control

8.1. CONTROL PARAMETERS

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

8.2. EXPOSURE CONTROLS

Apply general control to prevent unnecessary exposure

- 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 : Occupational exposure limits have not been defined for the substances in this product.
- Appropriate technical measures : Apply standard precautions during use of the product. Avoid inhalation of vapours.
- Hygiene measures : Take off contaminated clothing and wash it before reuse.
- 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

Respiratory Equipment: No specific requirements.

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, EN16523-1, EN388	

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Eye protection :

Type	Standards	
Safety glasses	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Color	: Pink
Odor	: Mild
Odor threshold (ppm)	: No data available
pH	: Neutral
Density (g/cm ³)	: 0.9 (68 °F)
Relative density	: 0.9 (68 °F)
Kinematic viscosity	: 23.4 centistokes (104 °F)
Particle characteristics	: Not applicable - product is a liquid

PHASE CHANGES

Melting point/freezing point (°F)	: No data available
Softening point/range (°F)	: Does not apply to aerosols.
Boiling point (°F)	: > 385
Boiling point (°C)	: > 196
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)	: > 200
Flash point (°C)	: > 93
Flammability (°F)	: No data available
Auto-ignition temperature (°F)	: No data available
Explosion limits (% v/v)	: No data available

SOLUBILITY

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

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9.2. OTHER INFORMATION

Evaporation rate (n butylacetate : No data available
=100)
Other physical and chemical : VOC (g/L): 334.65
parameters
Oxidizing properties : No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No data available.

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

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

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

SKIN CORROSION/IRRITATION

Causes skin irritation.

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SERIOUS EYE DAMAGE/IRRITATION

Causes serious eye irritation.

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

Suspected of damaging the unborn child.

STOT-SINGLE EXPOSURE

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

STOT-REPEATED EXPOSURE

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

ASPIRATION HAZARD

Due to the viscosity, this product does not present an aspiration hazard.

LONG TERM EFFECTS

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

OTHER INFORMATION

None known.

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SECTION 12: ECOLOGICAL INFORMATION**12.1. TOXICITY**

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

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.

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.

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SECTION 14: TRANSPORT INFORMATION

	UN / ID	UN proper shipping name	Hazard class(es)	PG*	Env**	Other information:
DOT	-		Transport hazard class: Not regulated for transport	-	No	See below for additional information.
IMDG	-		Transport hazard class: Not regulated for transport	-	No	See below for additional information.
IATA	-		Transport hazard class: Not regulated for transport	-	No	See below for additional information.

* Packing group

** Environmental hazards

ADDITIONAL INFORMATION

Not dangerous goods according to ADR/ADN/RID, IATA and IMDG.

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.

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

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15.2. U.S. FEDERAL REGULATIONS

TSCA (the non-confidential portion):	Alcohols, C6-12, ethoxylated propoxylated is listed 2-methylpentane-2,4-diol is listed
Clean Air Act:	Alcohols, C10-16, ethoxylated propoxylated is 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 contains substances that may cause endocrine disruption in humans.

STATE REGULATIONS

California / Prop. 65:	See product label for Prop 65 Statement (if applicable)
Massachusetts / Right To Know Act:	2-methylpentane-2,4-diol is listed
New Jersey / Right To Know Act:	2-methylpentane-2,4-diol / Substance number: 1003
New York / Right To Know Act:	- 2-methylpentane-2,4-diol is listed 2-methylpentane-2,4-diol is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds
Pennsylvania / Right To Know Act:	- 2-methylpentane-2,4-diol is listed
	-

NEPA

Health hazard: 2
Fire hazard: 1
Instability hazard: 0

15.4. RESTRICTIONS FOR APPLICATION

Restricted to professional users.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

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**

H315, Causes skin irritation.

H319, Causes serious eye irritation.

H361d, Suspected of damaging the unborn child.

THE FULL TEXT OF IDENTIFIED USES AS MENTIONED IN SECTION 1

None known.

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.

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