

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 02.21.2022

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Z-TEC-753 PART "A"

SECTION 1: Identification

Product Identifier

Product Name: Z-TEC-753 PART "A"



Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: CERAMIC FILED EPOXY

Uses Advised Against: Any use other than recommended above.

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

Dynamis Epoxy Systems
415 E. Venice Avenue
Venice, FL 34285
941.488.3999
www.dcdynamis.com

Emergency Telephone Number:

United States

ChemTel
(888)-255-3924 (24 hours)

SECTION 2: Hazard(s) Identification

GHS Classification:

Eye irritation, category 2B
Skin sensitization, category 1

Label elements

Hazard Pictograms:



Signal Word: Warning

Hazard statements:

H317 May cause an allergic skin reaction
H320 Causes eye irritation

Precautionary Statements:

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash hands thoroughly after handling
P272 Contaminated work clothing must not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection/face protection
P321 Specific treatment (see Sections 4 - 8 of this SDS and any supplemental information on the product label).
P302+P352 IF ON SKIN: Wash with plenty of soap and water
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention

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P501 Dispose of contents/container in accordance with all local, regional, state and federal regulations.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 1317-65-3	Calcium carbonate	55-70
CAS Number: 25068-38-6	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	20-25
CAS Number: 1314-13-2	Zinc oxide	10-15
CAS Number: 1309-37-1	Iron oxide	1-5

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance. Take precautions to ensure your own safety before attempting rescue. Wear appropriate safety eyewear, gloves, protective clothing and respiratory protection to prevent exposure. See Section 8 of this SDS for personal protective equipment recommendations.

After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After Swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Dermal exposure may cause an allergic skin reaction. Symptoms may include irritation, redness, pain,

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rash, inflammation, itching, burning and dermatitis.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing.

Delayed Symptoms and Effects:

Symptoms of exposure may be delayed.

Immediate Medical Attention and Special Treatment

Specific Treatment:

Not determined or not applicable.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

Product is not considered a fire hazard, but will burn if ignited. Closed containers may rupture, due to pressure build up, when exposed to extreme heat. Thermal decomposition may produce irritating and toxic fumes including carbon oxides, aldehydes, phenolics and other products of incomplete combustion.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Change contaminated clothing and launder before reuse.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Stop leak if you can do it without risk. Move containers from spill area. Contain by diking with sand, earth or other non-combustible material. Absorb spill with an inert material and place in a properly labeled, closed container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

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Use appropriate personal protective equipment (see Section 8). 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. 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. Keep away from open flame, hot surfaces, ignition sources and incompatible materials (see Section 10). Wash contaminated clothing before reuse.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Store in original container. Keep containers 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 unlabelled containers. Store away from heat, open flames and other sources of ignition. Store away from incompatible materials (See Section 10). Use appropriate containment to avoid environmental contamination.

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
OSHA	Calcium carbonate	1317-65-3	8-Hour TWA-PEL: 15 mg/m ³ (total dust)
	Calcium carbonate	1317-65-3	8-Hour TWA-PEL: 5 mg/m ³ (respirable fraction)
	Zinc oxide	1314-13-2	8-Hour TWA-PEL: 5 mg/m ³ (fume)
	Zinc oxide	1314-13-2	8-Hour TWA-PEL: 15 mg/m ³ (total dust)
	Zinc oxide	1314-13-2	8-Hour TWA-PEL: 5 mg/m ³ (respirable dust)
	Iron oxide	1309-37-1	8-Hour TWA-PEL: 10 mg/m ³ (fume)
	Iron oxide	1309-37-1	8-Hour TWA-PEL: 15 mg/m ³ (Total dust)
	Iron oxide	1309-37-1	8-Hour TWA-PEL: 5 mg/m ³ (Respirable fraction)
NIOSH	Calcium carbonate	1317-65-3	REL-TWA: 10 mg/m ³ (total dust - up to 10 hrs.)
	Calcium carbonate	1317-65-3	REL-TWA: 5 mg/m ³ (respirable fraction - up to 10 hrs.)
	Zinc oxide	1314-13-2	REL-TWA: 5 mg/m ³ (dust and fume [up to 10 hr])
	Zinc oxide	1314-13-2	Ceiling Limit: 15 mg/m ³ (dust)
	Zinc oxide	1314-13-2	IDLH: 500 mg/m ³ (dust and fume)
	Zinc oxide	1314-13-2	15-Minute STEL: 10 mg/m ³ (fume)
	Iron oxide	1309-37-1	REL-TWA: 5 mg/m ³ (up to 10 hrs. [dust and fume, as Fe])
	Iron oxide	1309-37-1	IDLH: 2500 mg/m ³ (dust and fume, as Fe)
ACGIH	Calcium carbonate	1317-65-3	8-Hour TWA: 10 mg/m ³ (inhalable particulate matter containing no asbestos and < 1% crystalline silica)

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Calcium carbonate	1317-65-3	8-Hour TWA: 3 mg/m ³ (respirable particles)
	Zinc oxide	1314-13-2	8-Hour TWA: 2 mg/m ³ (respirable particulate matter)
	Zinc oxide	1314-13-2	15-Minute STEL: 10 mg/m ³ (respirable particulate matter)
	Iron oxide	1309-37-1	8-Hour TWA: 5 mg/m ³ (respirable fraction)
United States(California)	Calcium carbonate	1317-65-3	8-Hour TWA-PEL: 10 mg/m ³ (total dust)
	Calcium carbonate	1317-65-3	8-Hour TWA-PEL: 5 mg/m ³ (respirable fraction)
	Zinc oxide	1314-13-2	8-Hour TWA-PEL: 5 mg/m ³ (fume)
	Zinc oxide	1314-13-2	15-Minute STEL: 10 mg/m ³ (fume)
	Iron oxide	1309-37-1	8-Hour TWA-PEL: 5 mg/m ³ (fume)

Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Use local exhaust, mechanical ventilation or additional engineering controls to maintain airborne concentrations below any occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection Equipment

Eye and Face Protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. 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. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory Protection:

In case of insufficient ventilation, wear suitable 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. Wear a properly fitted, air-purifying or air-fed respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

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Appearance	Opaque, red liquid
Odor	Mild epoxy
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	>210 °F (>98.9 °C)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	1.589 (water = 1)
Solubilities	Negligible in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Will not explode under normal conditions of storage or use.
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:

Exothermic reactions, including polymerization, may occur in contact with amines, strong acids, strong bases, alcohols, strong oxidizing agents and excessive heat.

Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Exothermic reactions, including polymerization, may occur in contact with amines, strong acids, strong bases, alcohols, strong oxidizing agents and excessive heat.

Conditions to Avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible Materials:

Strong acids; Bases; Oxidizing agents; Alcohols; Amines

Hazardous Decomposition Products:

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

SECTION 11: Toxicological Information

Acute Toxicity

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

Product Data: No data available.

Substance Data:

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Name	Route	Result
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	oral	LD50 Rat: >2000 mg/kg
	dermal	LD50 Rat: >2000 mg/kg
Zinc oxide	oral	LD50 Rat: > 5000 mg/kg
	dermal	LD50 Rat: > 2000 mg/kg
	inhalation	LC50 Rat: > 5.7 mg/L (4 hr [aerosol])
Iron oxide	oral	LD50 Rat: > 5000 mg/kg
	inhalation	LC50 Rat: 5.05 mg/L (4 hr (aerosol))

Skin Corrosion/Irritation

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

Product Data:

No data available.

Substance Data:

Name	Result
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Causes skin irritation.

Serious Eye Damage/Irritation

Assessment:

Causes eye irritation.

Product Data:

No data available.

Substance Data:

Name	Result
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Causes serious eye irritation.

Respiratory or Skin Sensitization

Assessment:

May cause an allergic skin reaction.

Product Data:

No data available.

Substance Data:

Name	Result
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	May cause an allergic skin reaction.

Carcinogenicity

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

Product Data: No data available.

Substance Data: No data available.

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International Agency for Research on Cancer (IARC):

Name	Classification
Iron oxide	Group 3

National Toxicology Program (NTP): None of the ingredients are listed.

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

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

Product Data:

No data available.

Substance Data: No data available.

Reproductive Toxicity

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

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

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

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Repeated Exposure)

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

Product Data:

No data available.

Substance Data: No data available.

Aspiration toxicity

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

Product Data:

No data available.

Substance Data: No data available.

Information on Likely Routes of Exposure:

Inhalation; Ingestion; Skin contact; Eye contact

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

Refer to Section 4 of this SDS.

Other Information:

No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment:

Toxic to aquatic life.

Product Data: No data available.

Substance Data:

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Name	Result
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Aquatic Invertebrates LC50 Daphnia magna: 2.7 mg/L (48 hours)
	Fish LC50 Oncorhynchus mykiss: 1.2 mg/L (96 hr)
	Aquatic Plants EC50 S. capricornutum: >11 mg/L (72 hr [growth rate])
Zinc oxide	Fish LC50 Thymallus arcticus: 0.112 mg/L (96 hr [read-across])
	Aquatic Invertebrates EC50 Daphnia magna: 0.86 mg/L (48 hr [read-across])
	Aquatic Plants EC50 Anabaena sp.: 0.3 mg/L (96 hr)

Chronic (Long-Term) Toxicity

Assessment:

Toxic to aquatic life with long lasting effects.

Product Data: No data available.

Substance Data:

Name	Result
Zinc oxide	Fish NOEC Oncorhynchus mykiss: 0.025 mg/L (25 d [read-across])
	Aquatic Invertebrates NOEC Daphnia magna: 0.04 mg/L (21 d)

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Not readily biodegradable. 6 - 12% degradation, measured by CO2 evolution, after 28 days.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Low potential for bioaccumulation. BCF: 31 dimensionless (QSAR)

Mobility in Soil

Product Data: No data available.

Substance Data: No data available.

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment:

Zinc oxide	PBT assessment does not apply as this is an inorganic substance.
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vPvB assessment:

Zinc oxide	vPvB assessment does not apply as this is an inorganic substance.
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Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

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Disposal Methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory agencies. Dispose of in accordance with all applicable local, regional, state and federal regulations.

Contaminated packages:



Not determined or not applicable.

SECTION 14: Transport Information


United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Maritime Dangerous Goods (IMDG)

UN Number	3082
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))
UN Transport Hazard Class(es)	9  
Packing Group	III
Environmental Hazards	Marine Pollutant (Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))
Special Precautions for User	None
Stowage Category	A

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	3082
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))
UN Transport Hazard Class(es)	9 
Packing Group	III
Environmental Hazards	None
Special Precautions for User	None

SECTION 15: Regulatory Information

United States Regulations

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Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.

SARA Section 313 Toxic Chemicals:

1314-13-2	Zinc oxide	Listed
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CERCLA:

1314-13-2	Zinc oxide	Listed	N/A
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RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

1317-65-3	Calcium carbonate	Listed
1314-13-2	Zinc oxide	Listed
1309-37-1	Iron oxide	Listed

New Jersey Right to Know:

1317-65-3	Calcium carbonate	Listed
1314-13-2	Zinc oxide	Listed
1309-37-1	Iron oxide	Listed

New York Right to Know:

1314-13-2	Zinc oxide	Listed
1309-37-1	Iron oxide	Listed

Pennsylvania Right to Know:

1317-65-3	Calcium carbonate	Listed
1314-13-2	Zinc oxide	Listed
1309-37-1	Iron oxide	Listed

California Proposition 65: None of the ingredients are listed.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

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End of Safety Data Sheet