Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

DELRIN 150 Series Natural

SECTION 1: Identification

Product identifier

Product name: DELRIN 150 Series Natural

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable.
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:
United States
Ensinger Inc.
365 Meadowlands Blvd
Washington, PA 15301
724-746-6050
compliance@ensinger-ind.com
www.ensingerplastics.com

Emergency telephone number:

United States
Ensinger Inc. Emergency Contact
800-869-4029 (M-F 9:00 A - 5:00 P EST)
724-746-6050 (M-F 9:00 A - 5:00 P EST)

SECTION 2: Hazard(s) identification

GHS classification:

Combustible Dust

Label elements

Hazard pictograms: None

Signal word: Warning

Hazard statements:

Combustible Dust May form combustible dust concentrations in air.

Precautionary statements: None

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 67-56-1	Methanol	<0.09

CAS number: 50-00-0	Formaldehyde	<0.00499

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

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 symptoms develop or persist, 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 water for several 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:

Product presents an explosion hazard when suspended in air under certain conditions. Inhalation of large amounts of dust may cause inflammation and irritation of the nose and throat. Symptoms may include cough, sore throat, tightness of the chest, chest pain and lightheadedness.

Delayed symptoms and effects:

Not determined or not applicable.

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:

Dry chemical, sand and carbon dioxide.

Unsuitable extinguishing media:

Do not use water, halogenated extinguishing agents and alcohol-based foam.

Specific hazards during fire-fighting:

May form combustible dust concentrations in air. Reacts with water and alcohols. Reacts violently with oxidants, strong acids and bases and chlorinated hydrocarbons. This generates a fire and explosion hazard.

Thermal decomposition may produce irritating/toxic fumes/gases.

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. Use shielding to protect against bursting containers.

Special precautions:

Violent reactions may result from the use of a water jet or halogenated extinguishing agents. When using extinguishers, avoid dispersing combustible dust into the air. Aim extinguishers directly at the base of the flames and apply the agent as gently as possible. Overall, give preference to using medium to wide spray patterns rather than solid streams. Use only non-sparking tools. Fire fight from a protected location or maximum possible distance. 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. Extinguish any sources of ignition. Do not ventilate area as this may spread dust. Wear recommended personal protective equipment including suitable respiratory protection (see Section 8). Ensure no sources of electric discharge or ignition are on your person before entering area. Do not get on skin, eyes or on clothing. Avoid breathing dust, fumes. Wash thoroughly after handling. Remove 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:

Avoid dust generation or stirring up of dust. Use only non-sparking tools. Ground all equipment used for recovery and clean up. Vacuum up and place in suitable containers for future disposal. Only use vacuum cleaners approved for dust collection. 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:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Use dust explosion proof electrical equipment and lighting. Avoid dust generation and dispersal of dust in air. Dust deposits should not be allowed to accumulate on surfaces. Clean dust residues at regular intervals. Do not use brooms or compressed air hoses to clean surfaces. Only use vacuums approved for dust collection. Use only non-sparking tools. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions such as electrical grounding and bonding or inner atmospheres. Keep containers tightly closed and grounded when not in use. Workers whose clothing may have been contaminated should change into non-contaminated clothing before leaving the work premises. Contaminated clothing should be segregated in such a manner so that there is no direct personal contact by personnel who handle, dispose or clean the clothing. Contaminated clothing should not be allowed out of the workplace. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10).

Conditions for safe storage, including any incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages.

Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Outside or detached storage is preferred. Inside storage should be in a standard flammable storage cabinet. Store away from incompatible materials (See Section 10).

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
ACGIH	Methanol	67-56-1	8-Hour TWA: 200 ppm
	Methanol	67-56-1	15-Minute STEL: 250 ppm
	Formaldehyde	50-00-0	15-Minute STEL: 0.3 ppm
	Formaldehyde	50-00-0	8-Hour TWA: 0.1 ppm
OSHA	Methanol	67-56-1	8-Hour TWA-PEL: 260 mg/m³ (200 ppm)
	Methanol	67-56-1	15-Minute STEL: 325 mg/m³ (250 ppm)
	Formaldehyde	50-00-0	TWA: 0.75 ppm
	Formaldehyde	50-00-0	STEL: 2 ppm
United States(California)	Methanol	67-56-1	15-Minute STEL: 325 mg/m³ (250 ppm)
	Methanol	67-56-1	PEL Ceiling: 1000 ppm
	Methanol	67-56-1	8-Hour TWA: 260 mg/m³ (200 ppm)
NIOSH	Methanol	67-56-1	REL-TWA: 260 mg/m³ (200 ppm [for up to a 10-hour workday during a 40-hour workweek])
	Methanol	67-56-1	15-Minute STEL: 325 mg/m³ (250 ppm)
	Methanol	67-56-1	IDLH: 6000 ppm
	Formaldehyde	50-00-0	REL: 0.02 ppm
	Formaldehyde	50-00-0	Ceiling Limit: 0.1 ppm (15-minute)
	Formaldehyde	50-00-0	IDLH: 20 ppm

Biological limit values:

Country (Legal Basis)	Substance	Identifier	Determinant	Specimen	Sampling time	Permissible limits
ACGIH	Methanol	67-56-1	Methanol	Urine	End of Shift	15 mg/L

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

This product is a combustible material which may be ignited by friction, heat, sparks or flames. It is recommended that all dust control equipment (such as local exhaust ventilation and material transport systems) involved in handling this product contain explosion relief vents or an explosion suppression system. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area. Keep static electricity under control, which includes the bonding and grounding of equipment. Emergency eye wash

stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal protection equipment

Eye and face protection:

Use safety glasses with side shields or goggles. Do not wear contact lenses when handling or processing this product. 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:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

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. Contaminated clothing should be removed and separated for decontamination. Do not allow contaminated work clothing out of the workplace. Perform routine housekeeping.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	solid, natural
Odor	sligh formaldehyde-like
Odor threshold	0.6 ppm formaldehyde
pH	Not applicable
Melting point/freezing point	`75 - 183 C (347 - 361 /f)
Initial boiling point/range	Not applicable
Flash point (closed cup)	Not applicable
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	May form combustible dust concentrations in air during processing, handling or other means
Upper flammability/explosive limit	Not applicable
Lower flammability/explosive limit	Not applicable
Vapor pressure	Not applicable
Vapor density	Not applicable
Density	> 1
Relative density	Not applicable
Solubilities	Not applicable

Partition coefficient (n-octanol/water)	Not applicable
Auto/Self-ignition temperature	Not applicable
Decomposition temperature	>230 °C Thermal decomposition of the resin accelerates above temperature listed. Decomposition can occur below the recommended processing temperature limit. Decomposition is a function of both processing temperature and time at that temperature
Dynamic viscosity	Not applicable
Kinematic viscosity	Not applicable
Explosive properties	Not applicable
Oxidizing properties	Not applicable

Other information

SECTION 10: Stability and reactivity

Reactivity:
Not reactive under recommended handling and storage conditions.

Chemical stability:
Stable under recommended handling and storage conditions.

Possibility of hazardous reactions:
Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to avoid:
Extreme heat, open flames, hot surfaces, sparks, static discharge, ignition sources, dust generation and accumulation and incompatible materials.

Incompatible materials:
None known.

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:

Name	Route	Result
Formaldehyde	oral	LD50 Rat: 100 mg/kg
	inhalation	LC50 Rat: <463 ppmV (4 hours)
	dermal	LD50 Rabbit: 279 mg/kg

Skin corrosion/irritation

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

Product data:
No data available.

Substance data:

Name	Result
Formaldehyde	Causes severe skin burns.

Serious eye damage/irritation

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

Product data:

No data available.

Substance data:

Name	Result
Formaldehyde	Causes serious eye damage.

Respiratory or skin sensitization

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

Product data:

No data available.

Substance data:

Name	Result
Formaldehyde	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:

Name	Species	Result
Formaldehyde		May cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Methanol	Not Applicable
Formaldehyde	Group 1

National Toxicology Program (NTP):

Name	Classification
Methanol	Not Applicable
Formaldehyde	Known to be human carcinogens

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:

Name	Result
Formaldehyde	Suspected of causing genetic defects.

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:

Name	Result
Methanol	Causes damage to Optic nerve (nervus opticus), central nervous system.

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:
No data available.

Symptoms related to the physical, chemical and toxicological characteristics:
No data available.

Other information:
No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Chronic (long-term) toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Persistence and degradability
Product data: No data available.
Substance data:

Name	Result
Methanol	Readily biodegradable (97% degradation after 20 days).
Formaldehyde	Readily biodegradable.

Bioaccumulative potential
Product data: No data available.
Substance data:

Name	Result
Methanol	Methanol does not significantly bioaccumulate in fish. Experimental BCFs of < 10 in fish species.
Formaldehyde	Accumulation in aquatic organisms is not to be expected.

Mobility in soil
Product data: No data available.

Substance data:

Name	Result
Methanol	Highly mobile (Koc: 0.13 - 0.61 dimensionless).
Formaldehyde	Adsorption to solid soil phase is possible.

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:

Methanol	This substance is not PBT.
Formaldehyde	Not a PBT substance.

vPvB assessment:

Methanol	This substance is not vPvB.
Formaldehyde	Not a vPvB substance.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

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	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 Air Transport Association Dangerous Goods Regulations (IATA-DGR)

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

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA): All ingredients are listed 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:

50-00-0	Formaldehyde	Listed

SARA Section 313 toxic chemicals:

67-56-1	Methanol	Listed
50-00-0	Formaldehyde	Listed

CERCLA:

67-56-1	Methanol	Listed	5000 lbs
50-00-0	Formaldehyde	Listed	100 lbs

RCRA:

67-56-1	Methanol	Listed	U154
50-00-0	Formaldehyde	Listed	U122

Section 112(r) of the Clean Air Act (CAA):

50-00-0	Formaldehyde	Listed

Massachusetts Right to Know:

67-56-1	Methanol	Listed
50-00-0	Formaldehyde	Listed

New Jersey Right to Know:

67-56-1	Methanol	Listed
50-00-0	Formaldehyde	Listed

New York Right to Know:

67-56-1	Methanol	Listed
50-00-0	Formaldehyde	Listed

Pennsylvania Right to Know:

67-56-1	Methanol	Listed
50-00-0	Formaldehyde	Listed

California Proposition 65:

⚠**WARNING:** This product can expose you to Formaldehyde; which is known to the State of California to cause cancer; and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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.

NFPA: 0-0-0
HMIS: 0-0-0
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End of Safety Data Sheet