



SAFETY DATA SHEET

CRYSTALFIN® CROSSLINKER

Revised Date: 11-17-2015

Supersedes: 10-25-2000

1. Identification

Product identifier CrystalFin® Crosslinker

Other means of identification

SDS number 09

Synonyms 1252

Recommended use Not available.

Recommended restrictions Not available.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Daly's Wood Finishing Products
4522 S 133rd Street
Tukwila, WA 98168

General Assistance (206) 244-8844, toll free: (800) 727-9694

E-Mail Not available.

Contact Person Not available.

Emergency Telephone Chemtrec: (800) 424-9300

2. Hazard(s) Identification

Physical hazards Flammable liquids Category 4

Health hazards Serious eye damage/eye irritation Category 1

Sensitization, Skin Category 1

Germ cell mutagenicity Category 2

Specific target organ toxicity, repeated exposure Category 2

Label elements



Signal word Danger

Hazard statement Combustible liquid. Causes serious eye damage. May cause an allergic skin reaction. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement
Prevention Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the work place. Obtain special instructions before use. Do not



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Response

handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. In case of fire: Use CO₂, dry chemical, alcohol-resistant foam, water fog for extinction. 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/physician IF ON SKIN: wash with plenty of soap and water. IF SKIN irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell.

Storage

Store locked up. Store in a well-ventilated place.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

3. Composition/information on ingredients

Mixtures

<u>Chemical name</u>	<u>CAS number</u>	<u>%</u>
Dipropylene glycol monomethyl ether	34590-94-8	73
1-Azirdinepropanoic acid, 2 methyl-2-ethyl-2[3-(2-methyl-1aziridinyl)-1-oxopropoxy-methyl]-1, 3-propandiyl ester	64742-47-8	27

4. First-aid measures

Inhalation

Move individual to fresh air. If breathing has stopped, apply artificial respiration, get medical attention immediately.

Skin contact

Wash area with soap and water. Remove contaminated clothing.

Eye contact

Wash with clean water for at least fifteen minutes; get medical attention.

Ingestion

DO NOT INDUCE VOMITING. Give water or milk to drink; get medical attention.

Most important symptoms/effects, acute and delayed

May cause redness, serious irritation of eye. Inhalation may cause anesthetic or narcotic effects. Ingestion may cause nausea, gastrointestinal irritation, or vomiting. When comes in contact with skin may cause irritation; prolonged contact may cause sensitization. Sensitizer for allergic persons.



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Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. In case of shortness of breath, give oxygen. Keep victim warm.

General information

If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

5. Fire-fighting measures

Suitable extinguishing media

Water fog, alcohol-resistant foam, CO₂, dry chemical.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

Flammable vapors released when heated above the flash point. May react with water to release energy.

Special protective equipment and Special firefighting procedures

Fight as a volatile fire; do not enter enclosed or confined fire spaces without proper protective equipment. This may include self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental Precautions

Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Provide ventilation. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk. Soak up fill with absorbent material. Let dry and dispose off. Rags and absorbent material should be immersed in water. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling

Read and observe all precautions on label. Use only with



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Conditions for safe storage

adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

KEEP OUT OF REACH OF CHILDREN. Store locked up. Store in original container; keep tightly closed and appropriately labeled. Do not reuse container for other purposes. Store away from high temperature, sparks, or open flame.

Incompatible materials

Acidics, anhydrides, strong oxidizers.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Dipropylene glycol monomethyl ether	PEL(TWA)	100 ppm (600 mg/m ³) [skin]

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Dipropylene glycol monomethyl ether	TWA	100 ppm (600 mg/m ³)

US. OSHA Table Z-2 (29 CFR 1910.1000)

None of the components in this product is listed.

US. OSHA Table Z-3 (29 CFR 1910.1000)

None of the components in this product is listed.

US. ACGIH Threshold Limit Values

Components	Type	Value
Dipropylene glycol monomethyl ether	TLV(TWA)	100 ppm
	TLV(ST)	150 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Dipropylene glycol monomethyl ether	REL(TWA)	100 ppm (600 mg/m ³)
	REL(ST)	150 ppm (900 mg/m ³) [skin]

Appropriate engineering controls

Provide adequate general and local exhaust ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.



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Individual protection measures, such as personal protective equipment

Eye/face protection

Goggles or face shield.

Skin protection

Hand protection

Wear rubber or plastic gloves.

Other

Wear impervious protective clothing. Eyewash station should be available.

Respiratory protection

None required with normal use. If spraying, wear a NIOSH approved respirator for organic vapors and ensure workers are trained in proper use. Provide adequate ventilation to keep vapor concentration below TLV.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Keep work area clean and free from spills and leaks. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Yellow liquid.

Physical state

Liquid.

Form

Liquid.

Color

Yellow.

Odor

Characteristic glycol ether odor.

Odor threshold

Not available.

pH

Not available.

Melting point

Not available.

Freezing point

Not available.

Initial boiling point and boiling range

363 °F

Flash point

175 °F

% Volatile by Volume

75 %

Evaporation rate (BuOAc=1)

<1

Maximum Volatile Organic Compound (V.O.C.)

715 grams/liter

Flammability (solid, liquid, gas)

Combustible liquid.

Upper/lower flammability or explosive limits

Flammability limit – lower (%)

Not available.

Flammability limit – upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure (mm Hg)

0.55 mm Hg

Vapor density (Air=1)

>1

Relative density (Specific gravity)

0.98

Solubility(ies)



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Solubility (water)	Slightly soluble in water.
Solubility (other)	Soluble in most petroleum solvents.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	Hazardous reactions will not occur under normal conditions.
Chemical stability	Stable under recommended handling and storage conditions.
Possibility of hazardous reactions	May occur if mixed with acidic materials.
Conditions to avoid	Ignition sources, oxidation.
Incompatible materials	Acidics, anhydrides, strong oxidizers.
Hazardous decomposition Products	Carbon monoxide, carbon dioxide, nitrous oxides.

11. Toxicological information

Information on likely routes of exposure

Ingestion May cause nausea, gastrointestinal irritation or vomiting.

Inhalation May cause anesthetic or narcotic effects.

Skin contact May cause irritation; prolonged contact may cause sensitization.

Eye contact Corrosive. May cause redness and irritation.

Symptoms related to the physical, chemical and toxicological characteristics May cause redness, serious irritation of eye. Inhalation may cause anesthetic or narcotic effect. Ingestion may cause nausea, gastrointestinal irritation, or vomiting. When comes in contact with skin may cause irritation; prolonged contact may cause sensitization.

Delayed and immediate effects and also chronic effects from short- and long-term exposure No adverse long term effects are known, when used in accordance with safe handling information (see section 8).

Numerical measures of toxicity

Components	Test	Species	Test Results
Dipropylene glycol monomethyl ether (CAS 64265-57-2)	Oral LD ₅₀	Rat	>5000 mg/kg
	Dermal LD ₅₀	Rabbit	9510 mg/kg
	Inhalation LC ₅₀	Rat	> 3.35 mg/l, 7h
1-Azirdinepropanoic acid, 2-methyl-2-ethyl-2[3-(2-methyl-1aziridinyl)-1-oxopropoxy-methyl]-1, 3 propandiyl ester (CAS 34590-94-8)	Oral LD ₅₀	Rat	2000 mg/kg



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Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	No data available.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Not listed as a carcinogen by the NTP, IARC, or OSHA.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	No data available.

12. Ecological information

Numerical measures of toxicity

Components	Test	Species	Test Results
Dipropylene glycol monomethyl ether (CAS 64265-57-2)	Fish LC ₅₀	Guppy (<i>Poecilia reticulata</i>)	>1000 mg/l, 96h
	Crustacea LC ₅₀	Water flea (<i>Daphnia magna</i>)	1919 mg/l, 48h
1-Azirdinepropanoic acid, 2-methyl-2-ethyl-2[3-(2-methyl-1aziridiny)-1-oxopropoxy-methyl]-1, 3 propandiyl ester (CAS 34590-94-8)	Fish LC ₅₀	Common carp (<i>Cyprinus carpio</i>)	>100 mg/l, 96h
	Crustacea EC ₅₀	Water flea (<i>Daphnia magna</i>)	81 mg/l, 48h

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility in soil	No information available.
Other adverse effects	No information available.

13. Disposal considerations

Disposal instructions	Dispose in accordance with all applicable federal, state and local regulations. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container; dispose of this material and its container in a safe way.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not reuse container for other purposes.



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14. Transport information

NOTE: DOT Ground - "Non-bulk shipments may be non-regulated per 49CFR 173.150(f)(2)"

DOT

UN/ID No	NA1993
Proper Shipping Name	Combustible Liquid, N.O.S (Glycol Ether)
Hazard Class	Comb Liq
Packing Group	III
In accordance with IMDG	Not regulated for transport.
In accordance with IATA	Not regulated for transport.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None of the chemicals in this product is regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Dipropylene glycol monomethyl ether (CAS 34590-94-8)	Listed
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CERCLA Hazardous Substance List (40 CFR 302.4)

None of the chemicals in this product is listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard	-	Yes
	Delayed Hazard	-	Yes
	Fire Hazard	-	Yes
	Pressure Hazard	-	No
	Reactivity Hazard	-	No

SARA 302/304 Extremely hazardous substance

None of the chemicals in this product is listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

None of the chemicals in this product is listed.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

None of the chemicals in this product is listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None of the chemicals in this product is listed.

Safe Drinking Water Act (SDWA)

None of the chemicals in this product is listed.



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US State regulations

US. New Jersey Worker and Community Right-to-Know Act

Dipropylene glycol monomethyl ether (CAS 34590-94-8)

US. Pennsylvania Worker and Community Right-to-Know Law

Dipropylene glycol monomethyl ether (CAS 34590-94-8)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT):

None of the chemicals in this product is listed.

International Inventories

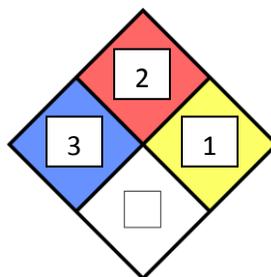
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non- Domestic Substances List (NDSL)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 10-25-2000
Revision date 11-17-2015
Version # 01
NFPA rating



References

ACGIH: Documentation of the Threshold Limit Values and Biological Exposure indices
ECHA: European Chemicals Agency
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
NIOSH: The National Institute for Occupational Safety and Health
NTP: National Toxicology Program
NLM: Hazardous Substances Data Base



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OECD : Organization for Economic Co-operation and
Development

OSHA: Occupational Safety and Health Administration

Disclaimer

The information, recommendations, and suggestions presented in this SDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations. All materials may present unknown hazards and should be used with caution.