

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Dynasolve® M-35

Version  
1.0

Revision Date:  
10/11/2024

SDS Number:  
70MDGM661378

Date of first issue:  
10/11/2024

## SECTION 1. IDENTIFICATION

Product name : Dynasolve® M-35

Product number : 661378

### Manufacturer or supplier's details

Company : Versum Materials US, LLC 8555 South River Parkway Tempe,  
AZ 85284-2601 Exporter EIN No. 47-5632014  
www.emdgroup.com/electronics Telephone: 800 837 2724

Emergency telephone : 1-800-424-9300 CHEMTREC (USA) 1-703-741-5970  
CHEMTREC (International) 24 Hours/day; 7 Days/week

### Recommended use of the chemical and restrictions on use

Recommended use : Epoxy flushing solvent

## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Eye irritation : Category 2A

Short-term (acute) aquatic hazard : Category 3

### GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H319 Causes serious eye irritation.  
H402 Harmful to aquatic life.

Precautionary Statements :

#### Prevention:

P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear eye protection/ face protection.

#### Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P337 + P313 If eye irritation persists: Get medical advice/ attention.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Components**

Chemical name	CAS-No.	Concentration (% w/w)
Propylene carbonate	108-32-7	>= 50 - < 70
Ethylene di(acetate)	111-55-7	>= 30 - < 50

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

If inhaled : fresh air.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.  
Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Seek medical treatment immediately.  
Remove contact lenses.

If swallowed : immediately make victim drink water (two glasses at most).  
Consult a physician.  
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : irritant effects

Notes to physician : No information available.

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## SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water  
Dry powder  
Foam  
Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards during fire fighting : Combustible.

Vapors are heavier than air and may spread along floors.  
Forms explosive mixtures with air on intense heating.  
Development of hazardous combustion gases or vapours possible in the event of fire.

Fire may cause evolution of:  
Carbon oxides

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Advice for non-emergency personnel:  
Do not breathe vapors, aerosols.  
Avoid substance contact.  
Ensure adequate ventilation.  
Evacuate the danger area, observe emergency procedures, consult an expert.  
Advice for emergency responders:  
Protective equipment see section 8.  
If possible, stop flow of product.

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.

Methods and materials for : Cover drains. Collect, bind, and pump off spills.

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containment and cleaning up : Observe possible material restrictions (see sections 7 and 10).  
Take up with liquid-absorbent material (e.g. Chemizorb®).  
Dispose of properly. Clean up affected area.

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## SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Emergency showers and eye wash stations should be readily accessible. Observe label precautions.

Conditions for safe storage : Store in original container.

Further information on storage conditions : Tightly closed. Risks from decomposition products: see section 10

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Engineering measures** : Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7

### Personal protective equipment

Respiratory protection : Respirator with filter for organic vapor  
Wear appropriate respirator when ventilation is inadequate.  
required when vapours/aerosols are generated.

Hand protection

Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Protective measures : Wear suitable protective clothing, gloves and eye/face protection.

Eye protection : Safety glasses

Body Protection : If there is any possibility of direct contact or exposure, wear chemical resistant protective clothing.

Hygiene measures : Avoid contact with skin, eyes and clothing.  
Change contaminated clothing. Wash hands after working with substance.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	Colorless - Light yellow.
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Boiling point/boiling range	:	421 °F / 216 °C
Flammability (solid, gas)	:	No data available
Decomposition temperature	:	No data available
Flash point	:	104.5 °C Method: Pensky-Martens closed cup
Auto-ignition temperature	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	0.08 hPa
Relative vapor density	:	No data available
Relative density	:	(water = 1) 1.15
Density	:	1.15 g/cm <sup>3</sup>
Solubility(ies) Water solubility	:	Miscibility with water
Partition coefficient: n-	:	No data available

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octanol/water

Evaporation rate : No data available

Viscosity : No data available

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### SECTION 10. STABILITY AND REACTIVITY

- Reactivity : Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
- Chemical stability : The product is chemically stable under standard ambient conditions (room temperature) .
- Possibility of hazardous reactions : Violent reactions possible with:  
Strong oxidizing agents  
Strong acids  
Strong reducing agents
- Conditions to avoid : Strong heating.
- Incompatible materials : Strong acids and strong bases  
Strong oxidizing agents  
Strong reducing agents
- Hazardous decomposition products : in the event of fire: See section 5.

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Eye contact  
Skin contact

#### Acute toxicity

##### **Product:**

Acute inhalation toxicity : Symptoms: Possible symptoms:, mucosal irritations

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## Components:

### Propylene carbonate:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute inhalation toxicity : Assessment: Toxic effects cannot be excluded

Acute dermal toxicity : LD50 (Rabbit): > 20,000 mg/kg  
Remarks: (IUCLID)

### Ethylene di(acetate):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

## Skin corrosion/irritation

### Product:

No data available

### Components:

#### Propylene carbonate:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No irritation

## Serious eye damage/eye irritation

### Product:

No data available

### Components:

#### Propylene carbonate:

Species : Rabbit  
Result : irritating  
Method : OECD Test Guideline 405  
GLP : yes

Result : irritating

## Respiratory or skin sensitization

### Product:

No data available

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## Components:

### Propylene carbonate:

Test Type : Patch test:  
Species : Human  
Result : negative  
Remarks : (IUCLID)

## Germ cell mutagenicity

### Product:

No data available

### Components:

#### Propylene carbonate:

Genotoxicity in vitro : Test Type: Ames test  
Result: negative  
Remarks: (IUCLID)

## Carcinogenicity

### Product:

No data available

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

## Reproductive toxicity

### Product:

No data available

## STOT-single exposure

### Product:

No data available

## STOT-repeated exposure

### Product:

No data available

## Aspiration toxicity

### Product:

No data available



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## Further information

### **Product:**

Remarks : Handle in accordance with good industrial hygiene and safety practice  
Other dangerous properties can not be excluded.  
This substance should be handled with particular care.  
The product has not been tested. The information is derived from the properties of the individual components.

## **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

#### Components:

##### **Propylene carbonate:**

Toxicity to fish : NOEC (Leuciscus idus (Golden orfe)): 2,200 mg/l  
Exposure time: 96 h  
Remarks: (IUCLID)  
  
LC50 (Leuciscus idus (Golden orfe)): ca. 5,300 mg/l  
Exposure time: 96 h  
Remarks: (IUCLID)

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l  
Exposure time: 48 h  
Remarks: (IUCLID)

Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): > 900 mg/l  
Exposure time: 72 h  
Remarks: (IUCLID)

Toxicity to microorganisms : IC50 (Pseudomonas putida): > 10,000 mg/l  
Exposure time: 17 h  
Remarks: (IUCLID)

##### **Ethylene di(acetate):**

Toxicity to fish : LC50 (Fathead minnow (Pimephales promelas.): 40.45 mg/l  
Exposure time: 96 h  
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): > 116.3 mg/l  
Exposure time: 48 h  
Test Type: static test

### **Persistence and degradability**

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## Components:

### **Propylene carbonate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 94 %  
Exposure time: 29 d  
Method: OECD Test Guideline 301E

Result: Readily eliminated from water  
Biodegradation: 97 %  
Exposure time: 4 d  
Method: OECD Test Guideline 302B

### **Ethylene di(acetate):**

Biodegradability : Result: Readily biodegradable.

### **Bioaccumulative potential**

## Components:

### **Ethylene di(acetate):**

Bioaccumulation : Remarks: Potential to bioaccumulate is low.

### **Mobility in soil**

No data available

### **Other adverse effects**

## Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Discharge into the environment must be avoided.  
No ecological testing was carried out on the preparation.

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## SECTION 13. DISPOSAL CONSIDERATIONS

### **Disposal methods**

Waste from residues : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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Contaminated packaging : When discarding an empty container, the contaminated to the inside is removed completely and it discards according to your local regulations.

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## SECTION 14. TRANSPORT INFORMATION

### International Regulations

UN number : Not dangerous goods  
Proper shipping name : Not dangerous goods  
Class : Not dangerous goods  
Packing group : Not dangerous goods  
Marine pollutant : Not dangerous goods

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### Domestic regulation

#### 49 CFR Road

Not regulated as a dangerous good

### Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

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## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

### SARA 313

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Ethylene di(acetate)                      111-55-7    >= 30 - < 50 %

## Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

## US State Regulations

### Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

### TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

### The ingredients of this product are reported in the following inventories:

TSCA    :    All substance listed on the TSCA Active Inventory

DSL    :    All components of this product are on the Canadian DSL

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## SECTION 16. OTHER INFORMATION

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release 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 or in any process, unless specified in the text.

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