

Safety Data Sheet

Version 2.0

Revision Date 11/08/2023

SDS Number 300000078607

Print Date 11/15/2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Dynasolve® CU-6

Product Use Description : Polyurethane remover

Manufacturer/Importer/Distributor : 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 number (24h) : 1-800-424-9300
(+1) 703-741-5970 (CHEMTREC)

2. HAZARDS IDENTIFICATION

GHS classification

Flammable liquids - Category 4
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 1
Toxic to reproduction - Category 1B
Specific Target Organ Toxicity - Single Exposure - Category 3
Acute hazards to the aquatic environment - Category 2
Chronic hazards to the aquatic environment - Category 1

GHS label elements

Hazard pictograms/symbols



Signal Word: Danger

Hazard Statements:

H227:Combustible liquid.
H315:Causes skin irritation.

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H318:Causes serious eye damage.
H335:May cause respiratory irritation.
H336:May cause drowsiness or dizziness.
H360:May damage fertility or the unborn child.
H401:Toxic to aquatic life.
H410:Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention : P201:Obtain special instructions before use.
P202:Do not handle until all safety precautions have been read and understood.
P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261:Avoid breathing dust/fume/gas/mist/vapors/spray.
P264:Wash face, hands and any exposed skin thoroughly after handling.
P271:Use only outdoors or in a well-ventilated area.
P273:Avoid release to the environment.
P280:Wear protective gloves/protective clothing/eye protection/face protection.
P281:Use personal protective equipment as required.

Response : P302+P352 :IF ON SKIN: Wash with plenty of soap and water.
P332+P313 :If skin irritation occurs: Get medical advice/attention.
P362 :Take off contaminated clothing.
P321 :Specific treatment (see supplemental first aid instructions on this label).
P304+P340 :IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 :Call a POISON CENTER or doctor/ physician if you feel unwell.
P305+P351+P338 :IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 :Immediately call a POISON CENTER/doctor.
P308+P313 :IF exposed or concerned: Get medical advice/attention.
P370 + P378 :In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 :Collect spillage.

Storage : P403+P233:Store in a well-ventilated place. Keep container tightly closed.
P405:Store locked up.

Disposal : P501:Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazards not otherwise classified

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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Components	CAS Number	Concentration (Weight)
Methyl-2-pyrrolidinone, 1-	872-50-4	40% - 60 %
GAMMA-BUTYROLACTONE	96-48-0	10% - 30 %
Ethylene glycol phenyl ether	122-99-6	10% - 20 %
Nonylphenol, branched, ethoxylated	68412-54-4	2.5% - 10 %

The composition is trade secret.

4. FIRST AID MEASURES

- General advice : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- Eye contact : Hold eyelids apart, initiate and maintain gentle and continuous irrigation care is not promptly available, continue to irrigate for one hour.
- Skin contact : Wash off immediately with plenty of water for at least 20 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.
- Ingestion : Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation : If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.
- Most important symptoms/effects - acute and delayed : Redness.Repeated and/or prolonged exposures may result in : Blood chemistry changes (such as methemoglobinemi a leading to cyanosis or loss of consciousness). Kidney disorders.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam.
Carbon dioxide (CO2).
Dry chemical.
Dry sand.
Limestone powder.
- Specific hazards : Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NOx) is to be expected. Incomplete combustion may form carbon monoxide. Burning produces noxious and toxic fumes. In the event of fire, cool tanks with water spray . Fire or intense heat may cause violent rupture of packages. Flash back possible over considerable distance. May form explosive mixtures in air.

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Special protective equipment for fire-fighters : Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures : Use self-contained breathing apparatus and chemically protective clothing. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions : Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Shut off or remove all ignition sources. Construct a dike to prevent spreading.

Methods for cleaning up : Call Emergency Response number for advice. Approach suspected leak areas with caution. Absorb with inert absorbent materials such as: Dry sand. Vermiculite. Activated charcoal. Place in appropriate chemical waste container.

Additional advice : If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling

Avoid contact with eyes. See "Flammable and Combustible Liquid Code" NFPA No. 30, National Fire Protection Association, Boston, MA. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage

Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep in a dry, cool place. Keep away from oxidizers.

Technical measures/Precautions

Keep away from open flames, hot surfaces and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Provide readily accessible eye wash stations and safety showers.
Handle product only in closed system or provide appropriate exhaust ventilation at machinery.

Personal protective equipment

Respiratory protection : Wear appropriate respirator when ventilation is inadequate.

Hand protection : Nitrile rubber.
Impervious gloves.
Chemical-resistant, impervious gloves complying with an approved standard

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should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Chemical resistant goggles must be worn.

Skin and body protection : Long sleeve shirts and trousers without cuffs.

Environmental exposure controls : Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Shut off or remove all ignition sources.

Special instructions for protection and hygiene : Provide readily accessible eye wash stations and safety showers.

Exposure limit(s)

Methyl-2-pyrrolidinone, 1-	Time Weighted Average (TWA): WEEL	10 ppm	40 mg/m ³
Methyl-2-pyrrolidinone, 1-	Short Term Exposure Limit (STEL): WEEL	30 ppm	120 mg/m ³
Methyl-2-pyrrolidinone, 1-	Time Weighted Average (TWA): WEEL	15 ppm	60 mg/m ³

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid. Colorless - Light yellow.

Odour : Amine-like.

Odor threshold : No data available.

pH : No data available.

Melting point/range : No data available.

Boiling point/boiling range : 410 °F (210 °C)

Flash point : 192 °F (89 °C)

Evaporation rate : No data available.

Flammability (solid, gas) : Refer to product classification in Section 2

Upper/lower explosion/flammability limit : No data available.

Vapour pressure : 0.34 mmHg

Water solubility : Completely soluble.

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Relative vapor density : No data available.
Relative density : 1.065 (water = 1)
Partition coefficient: n-octanol/water : No data available.
Auto-ignition temperature : No data available.
Decomposition temperature : No data available.
Viscosity : No data available.
Density : No data available.
: 66.486 lb/ft³ (1.065 g/cm³)

10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal conditions.
Conditions to avoid : Heat, flames and sparks.
Materials to avoid : Oxidizing agents.
Hazardous decomposition products : Hazardous combustion products:
Carbon oxides.
Nitrogen oxides (NO_x).
Possibility of hazardous Reactions/Reactivity : No data available.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Likely routes of exposure

Effects on Eye : Causes eye burns. Risk of serious damage to eyes.
Effects on Skin : Causes skin irritation.
Inhalation Effects : Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.
Ingestion Effects : Harmful if swallowed.

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Symptoms : Redness. Repeated and/or prolonged exposures may result in ;, Blood chemistry changes (such as methemoglobinemia leading to cyanosis or loss of consciousness)., Kidney disorders.

Acute toxicity

Acute Oral Toxicity : ATEmix : 2,855.27 mg/kg

Inhalation : No data is available on the product itself.

Inhalation - Components

Methyl-2-pyrrolidinone, 1-

GAMMA-BUTYROLACTONE

LC 50 (4 h) : > 5.1 mg/l

LC50 (4 h) : > 5.1 mg/l

Species : Rat male

Species : Rat

Acute Dermal Toxicity : ATEmix : 51,751.41 mg/kg

Skin corrosion/irritation : Irritating to skin.

Serious eye damage/eye irritation : Risk of serious damage to eyes.

Sensitization. : No data available.

Chronic toxicity or effects from long term exposures

Carcinogenicity : No data available.

Reproductive toxicity : 1-Methyl-2-Pyrrolidone has caused embryotoxic and teratogenic effects in laboratory animals. May damage fertility or the unborn child.

Germ cell mutagenicity : No data is available on the product itself.

Specific target organ systemic toxicity (single exposure) : May cause drowsiness or dizziness.

Specific target organ systemic toxicity (repeated exposure) : No data available.

Aspiration hazard : No data available.

Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Repeated and/or prolonged exposures may result in ;, Blood chemistry changes (such as methemoglobinemia leading to cyanosis or loss of consciousness)., Kidney disorders.

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12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to fish - Components

Methyl-2-pyrrolidinone, 1-	LC50 (96 h) : 832 mg/l	Species : Bluegill (Lepomis macrochirus)
Methyl-2-pyrrolidinone, 1-	LC50 (96 h) : 4,000 mg/l	Species : Golden Orfe (Leuciscus lodus L, Golden variety)
GAMMA-BUTYROLACTONE	LC50 (96 h) : 220 - 460 mg/l	Species : Fish
Nonylphenol, branched, ethoxylated	LC 50 (96 h) : 0.218 mg/l	Species : Fathead minnow (Pimephales promelas)

Toxicity to daphnia - Components

Methyl-2-pyrrolidinone, 1-	EC 50 (48 h) : > 4,000 mg/l	Species : Daphnia
Methyl-2-pyrrolidinone, 1-	NOEC (21 d) : 12.5 mg/l	Species : Daphnia magna
GAMMA-BUTYROLACTONE	EC 50 (48 h) : > 500 mg/l	Species : Daphnia
Nonylphenol, branched, ethoxylated	LC50 (48 h) : 0.148 mg/l	Species : Daphnia magna

Toxicity to algae - Components

Methyl-2-pyrrolidinone, 1-	EC 50 (72 h) : 600.5 mg/l	Species : Algae (Pseudokirchneriella subcapitata)
Methyl-2-pyrrolidinone, 1-	NOEC (72 h) : 92.6 mg/l	Species : Algae (Pseudokirchneriella subcapitata)
GAMMA-BUTYROLACTONE	EC 50 (72 h) : 360 mg/l	Species : Algae
Nonylphenol, branched, ethoxylated	EC 50 (72 h) : > 3 mg/IOECD Test Guideline 201	Species : Algae (Pseudokirchneriella subcapitata)

Toxicity to other organisms : No data available.

Toxicity to other organisms - Components

Nonylphenol, branched, ethoxylated : NOEC (3 h): 100 mg/l Species : Activated sewage sludge.

Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : No data available.

Bioaccumulation : No data is available on the product itself.

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Bioaccumulation - Components

Methyl-2-pyrrolidinone, 1-
GAMMA-BUTYROLACTONE

The product is not bioaccumulating.
Negligible bioaccumulation potential.

13. DISPOSAL CONSIDERATIONS

- Waste from residues / unused products : The product should not be allowed to enter drains, water courses or the soil; dispose of this material and its container in a safe way. Waste from residues / unused products: do not discharge effluent containing this product into waterways or sewer systems without proper authorization. Contact supplier if guidance is required.
- Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

14. TRANSPORT INFORMATION

DOT

- UN/ID No. : UN3082
Proper shipping name : Environmentally hazardous substances, liquid, n.o.s., (Nonylphenol, branched, ethoxylated)
Class or Division : 9
Packing group : III
Label(s) : 9
Marine Pollutant : No

IATA

- UN/ID No. : UN3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s., (Nonylphenol, branched, ethoxylated)
Class or Division : 9
Packing group : III
Marine Pollutant : No

IMDG

- UN/ID No. : UN3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Nonylphenol, branched, ethoxylated)
Class or Division : 9
Packing group : III
Label(s) : 9
Marine Pollutant : No

TDG

- UN/ID No. : UN3082

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Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.,
(Nonylphenol, branched, ethoxylated)
Class or Division : 9
Packing group : III
Label(s) : 9
Marine Pollutant : No

Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact customer service.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):
Methyl-2-pyrrolidinone, 1-

CERCLA Reportable Quantity (RQ):

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Not on Inventory.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification

Flammable (gases, aerosols, liquids, or solids) Skin Corrosion or Irritation Serious eye damage or eye irritation
Reproductive toxicity Specific target organ toxicity (single or repeated exposure)

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level

Methyl-2-pyrrolidinone, 1-
Ethylene glycol phenyl ether
Methyl-2-pyrrolidinone, 1-
Ethylene glycol phenyl ether
Nonylphenol, branched, ethoxylated

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level

None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Methyl-2-pyrrolidinone, 1-

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16. OTHER INFORMATION

HMIS Rating

Health : 3*

Flammability : 2

Physical hazard : 0

Prepared by : Product Compliance Department

Telephone : 800 837 2724

Preparation Date : 11/15/2023
