

Safety Data Sheet

Version 2.1

Revision Date 11/15/2023

SDS Number 300000078622

Print Date 11/15/2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Dynasolve® 220

Product Use Description : Organic solvent

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 3
Serious Eye Damage/Eye Irritation - Category 2
Specific Target Organ Toxicity - Single Exposure - Category 3
Aspiration Hazard - Category 1
Acute hazards to the aquatic environment - Category 2
Chronic hazards to the aquatic environment - Category 2

GHS label elements

Hazard pictograms/symbols



Signal Word: Danger

Hazard Statements:

H226: Flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation.

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H336:May cause drowsiness or dizziness.
H411:Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- Prevention : P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233:Keep container tightly closed.
P240:Ground and bond container and receiving equipment.
P241:Use explosion-proof electrical, ventilating and lighting equipment.
P242:Use non-sparking tools.
P243:Take action to prevent static discharges.
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.
- Response : P301+P310 :IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353 :IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 :IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 :IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311 :Call a POISON CENTER or doctor/ physician.
P331 :Do NOT induce vomiting.
P337+P313 :If eye irritation persists: Get medical advice/attention.
P370+P378 :In case of fire, use recommended extinguishing media 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
Naphtha (petroleum), hydrotreated heavy	64742-48-9	60% - 80 %
Benzenesulfonic acid, C10-16-alkyl derivs	68584-22-5	20% - 40 %

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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 : Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
- Ingestion : Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. 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. If unconscious place in recovery position and seek medical advice. Move to fresh air.
- Inhalation : No data available.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam.
Carbon dioxide (CO₂).
Dry chemical.
Dry sand.
Limestone powder.
- Specific hazards : Incomplete combustion may form carbon monoxide. Flash back possible over considerable distance. Fire or intense heat may cause violent rupture of packages. Burning produces noxious and toxic fumes. May form explosive mixtures in air. Downwind personnel must be evacuated.
- Special protective equipment for fire-fighters : Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations., Do not allow run-off from firefighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

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Personal Precautions, Protective Equipment, and Emergency Procedures	: Remove all sources of ignition. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.
Environmental precautions	: Local authorities should be advised if significant spillages cannot be contained. Prevent spilled product from entering streams or drinking water supplies. Shut off or remove all ignition sources. Construct a dike to prevent spreading.
Methods for cleaning up	: Absorb with inert absorbent materials such as: Dry sand. Vermiculite. Activated charcoal. Approach suspected leak areas with caution. Call Emergency Response number for advice. Place in appropriate chemical waste container.
Additional advice	: If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. 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 containers tightly closed in a dry, cool and well-ventilated place. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat and sources of ignition. 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	: 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.
Eye protection	: Full face shield with goggles underneath.
Skin and body protection	: Impervious clothing.

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Rubber or plastic boots.
Slicker Suit.

Environmental exposure controls : Local authorities should be advised if significant spillages cannot be contained. Prevent spilled product from entering streams or drinking water supplies. Shut off or remove all ignition sources.

Special instructions for protection and hygiene : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid. Amber.

Odour : No data available.

Odor threshold : No data available.

pH : Acidic.

Melting point/range : No data available.

Boiling point/boiling range : 320 °F (160 °C)

Flash point : 111 °F (44 °C) Setaflash Closed Cup

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 : No data available.

Water solubility : Insoluble.

Relative vapor density : No data available.

Relative density : 0.83 (water = 1)

Partition coefficient: n-octanol/water : No data available.

Auto-ignition temperature : No data available.

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Decomposition temperature : No data available.
Viscosity : No data available.
Density : No data available.
Density : 51.815 lb/ft³ (0.83 g/cm³)

10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal conditions.
Conditions to avoid : Heat, flames and sparks.
Materials to avoid : Bases.
Oxidizing agents.
Hazardous decomposition products : Carbon monoxide.
Carbon dioxide (CO₂).
Sulphur oxides.
Possibility of hazardous Reactions/Reactivity : No data available.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Likely routes of exposure

Effects on Eye : Eye may become red, tear, and become painful.
Effects on Skin : May cause defatting of the skin, but is not an irritant.
Inhalation Effects : Liquid aspirated into the lungs through inhalation, ingestion or vomiting may cause a serious chemical pneumonia. Drowsiness.
Ingestion Effects : May cause discomfort if swallowed.
Symptoms : No data available.

Acute toxicity

Acute Oral Toxicity : Not classified for acute toxicity based on available data. Not classified for acute toxicity based on available data.

Acute Oral Toxicity - Components

Naphtha (petroleum), hydrotreated heavy	LD50 : > 5,000 mg/kg OECD Test Guideline 401	Species : Rat
Benzenesulfonic acid, C10-16-alkyl	LD50 : > 5,000 mg/kg OECD	Species : Rat

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derivs

Test Guideline 401

Inhalation : No data is available on the product itself.

Inhalation - Components

Naphtha (petroleum), hydrotreated heavy	LC 50 (4 h) : > 5.61 mg/l OECD Test Guideline 403	Species : Rat
Benzenesulfonic acid, C10-16-alkyl derivs	LC50 (4 h) : > 1.9 mg/l OECD Test Guideline 403	Species : Rat

Acute Dermal Toxicity : ATEmix : 2,857.14 mg/kg

Skin corrosion/irritation : No skin irritation.

Serious eye damage/eye irritation : Causes serious eye irritation.

Sensitization. : No data available.

Chronic toxicity or effects from long term exposures

Carcinogenicity : No data available.

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

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.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

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

Toxicity to fish - Components

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Naphtha (petroleum), hydrotreated heavy	LL 50 (96 h) : 8.2 mg/l	Species : Fathead minnow (Pimephales promelas)
Benzenesulfonic acid, C10-16-alkyl derivs	LC50 (96 h) : > 10,000 mg/IOECD Test Guideline 203	Species : Sheepshead minnow (Cyprinodon variegatus)
Toxicity to daphnia - Components Benzenesulfonic acid, C10-16-alkyl derivs	EC 50 (48 h) : > 1,000 mg/IOECD Test Guideline 202	Species : Daphnia magna
Toxicity to other organisms	: No data available.	
Toxicity to other organisms - Components Benzenesulfonic acid, C10-16-alkyl derivs	: EC 50 (8 h): 3,200 - 5,000 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.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	: 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.	: UN1993
Proper shipping name	: Flammable liquids, n.o.s., (Naphtha (petroleum), hydrotreated heavy, Benzenesulfonic acid, C10-16-alkyl derivs)
Class or Division	: 3
Packing group	: III
Label(s)	: 3
Marine Pollutant	: Yes

** NOTE: This product contains a substance that is regulated as a Marine Pollutant when transported in bulk packages (liquid – volume exceeding 450 liters, gas – water capacity exceeding 454 kilograms).

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IATA

UN/ID No. : UN1993
Proper shipping name : Flammable liquid, n.o.s., (Naphtha (petroleum), hydrotreated heavy, Benzenesulfonic acid, C10-16-alkyl derivs)
Class or Division : 3
Packing group : III
Label(s) : 3
Marine Pollutant : Yes

** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

IMDG

UN/ID No. : UN1993
Proper shipping name : FLAMMABLE LIQUID, N.O.S., (Naphtha (petroleum), hydrotreated heavy, Benzenesulfonic acid, C10-16-alkyl derivs)
Class or Division : 3
Packing group : III
Label(s) : 3
Marine Pollutant : Yes

** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

TDG

UN/ID No. : UN1993
Proper shipping name : FLAMMABLE LIQUID, N.O.S., (Naphtha (petroleum), hydrotreated heavy, Benzenesulfonic acid, C10-16-alkyl derivs)
Class or Division : 3
Packing group : III
Label(s) : 3
Marine Pollutant : Yes

** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

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.

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15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

CERCLA Reportable Quantity (RQ):

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
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) Acute toxicity (any route of exposure) Serious eye damage or eye irritation Specific target organ toxicity (single or repeated exposure) Aspiration Hazard

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)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. OTHER INFORMATION

Prepared by : Product Compliance Department

Telephone : 800 837 2724

Preparation Date : 11/15/2023