



Safety Data Sheet

Revision Date: 12/07/23

www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name: 36280 / USP Residual Solvents Class 2- Mixture B
Company: Restek Corporation
Address: 110 Benner Circle
Bellefonte, Pa. 16823
Phone#: 814-353-1300
Fax#: 814-353-1309
Emergency#: 800-424-9300 (CHEMTREC)
703-527-3887 (Outside the US)
Email: www.restek.com
Revision Number: 13
Intended use: For Laboratory use only. Uses other than those described above

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Classification: Flammable Liquid Category 4

GHS Signal Word: Warning

GHS Hazard: Combustible Liquid
GHS Precautions:

Safety Precautions: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 3: H336 May cause drowsiness or dizziness.

Repeated Exposure Target Organs: Specific target organ toxicity - Repeated exposure - STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure. (No information to prove exclusion of certain routes of exposure)
Specific target organ toxicity - Repeated exposure - STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure.
Specific target organ toxicity - Repeated exposure - STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Minimum classification; No information to prove exclusion of certain routes of exposure)

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
dimethyl sulfoxide	67-68-5	200-664-3	99.9075
hexane	110-54-3	203-777-6	0.0283

pyridine	110-86-1	203-809-9	0.02
ethylene glycol dimethyl ether	110-71-4	203-794-9	0.01
Tetralin	119-64-2	204-340-2	0.01
trichloroethylene	79-01-6	201-167-4	0.008
chloroform	67-66-3	200-663-8	0.006
Nitromethane	75-52-5	200-876-6	0.005
2-hexanone	591-78-6	209-731-1	0.005

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
Fire and/or Explosion Hazards:	No data.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.
Methods for Clean-up:	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. As with all chemicals, good industrial hygiene practices should be followed when handling this material.
Storage Technical Measures and Conditions:	Store in a cool dry place. Isolate from incompatible materials. Keep container closed when not in use

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:					
Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
dimethyl sulfoxide	67-68-5	Not established	None Known	Not established	No data available

Personal Protection:	
Engineering Measures:	Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.
Respiratory Protection:	No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 3. A respirator is not normally required.
Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	None
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Boiling Point (°C):	189 °C at 1013 hPa (ECHA_API)
Melting Point (°C):	18.5 °C
Flash Point (°F):	No data available
Upper Flammable/Explosive Limit, % in air:	No data available
Lower Flammable/Explosive Limit, % in air:	No data available
Autoignition Temperature (°C):	No data available deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	1.1 g/cm3 at 20 °C (ECHA_API)
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Not determined
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.97
Molecular Weight:	No data available

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	No data available

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	No data available
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea, and headache.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	May be harmful if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea, and headache.
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Component Toxicological Data:**NIOSH:**

Chemical Name	CAS No.	LD50/LC50
Dimethyl sulfoxide	67-68-5	Dermal LD50 Rat 40000 mg/kg; Inhalation LC50 Rat >5.33 mg/L 4 h; Oral LD50 Rat 28300 mg/kg

Component Carcinogenic Data:**OSHA:**

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 106 [in preparation]; Monograph 63 [1995]	79-01-6	Group 1
Monograph 77 [2000]	75-52-5	Group 2B
Monograph 73 [1999]	67-66-3	Group 2B
Monograph 119 [2019]; Monograph 77 [2000]	110-86-1	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	No ecological information available
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION**United States:**

DOT Proper Shipping Name:	Not Regulated
UN Number:	Not applicable
Hazard Class:	Not applicable
Packing Group:	Not applicable

International:

IATA Proper Shipping Name:	Not Regulated
UN Number:	Not applicable

Hazard Class:
Packing Group:

Not applicable
Not applicable

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
dimethyl sulfoxide	67-68-5	-	-	-	X
hexane	110-54-3				X
pyridine	110-86-1				X
ethylene glycol dimethyl ether	110-71-4				X
Tetralin	119-64-2				X
trichloroethylene	79-01-6				
chloroform	67-66-3				
Nitromethane	75-52-5				
2-hexanone	591-78-6				

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Nitromethane	75-52-5	Prop 65 Cancer
Chloroform	67-66-3	Prop 65 Cancer
Trichloroethylene	79-01-6	Prop 65 Cancer
Pyridine	110-86-1	Prop 65 Cancer
Methyl n-butyl ketone	591-78-6	Prop 65 Develop Tox
Chloroform	67-66-3	Prop 65 Develop Tox
Trichloroethylene	79-01-6	Prop 65 Develop Tox
Methyl n-butyl ketone	591-78-6	Prop 65 Rep Male
Trichloroethylene	79-01-6	Prop 65 Rep Male
n-Hexane	110-54-3	Prop 65 Rep Male

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
dimethyl sulfoxide	67-68-5	X	-	-	-
hexane	110-54-3				
pyridine	110-86-1				
ethylene glycol dimethyl ether	110-71-4				
Tetralin	119-64-2				
trichloroethylene	79-01-6				
chloroform	67-66-3				
Nitromethane	75-52-5				
2-hexanone	591-78-6				

16. OTHER INFORMATION

Prior Version Date: 11/21/23

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

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