DS-100 Dielectric Solvent

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Ref: CSSS-TCO-010-155483
Issue Date: 20240101 Revision Date: 20251015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Substance - Liquid
Product name	:	DS-100 Dielectric Solvent
Product Description		Hydrocarbon solvent. Hydrocarbons, C11-C13

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture	:	General cleaning of electrical components and electronic devices. Used in maintenance and cleaning operations to remove hydrocarbon residue from a variety of mechanical surfaces. For Professional Use Only.

1.2.2. Uses advised against

Restrictions on use	:	Do not expose to fire or flame. Do not use in applications >50C. Ground all equipment to prevent static electricity buildup.

1.3. Details of the supplier of the safety data sheet

Supplier
Engineered Fluids, Inc.
4917 Profit Drive, Tyler, TX 75707
T +1-281-766-4501
support@engineeredfluids.com

1.4. Emergency telephone number

Emergency number	:	Call Infotrac, Inc., 1-352-323-3500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aspiration hazard, Category 1	H304

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May be fatal if swallowed and enters airways.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP)	:	Danger
Hazard statements (CLP)	:	H304 - May be fatal if swallowed and enters airways.
Precautionary statements (CLP)	:	
Prevention:		P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Response		P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. P370 + P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.
Storage		P405 - Store locked up. P403 – Store in a well-ventilated place.
Disposal		P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
Extra phrases	:	For professional users only.

2.3. Other hazards

Material can accumulate static charges which may cause an ignition. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Combustible.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrocarbons, c11-c13, isoalkanes, <2% aromatics	CAS.: 90622-5-85	100	Asp. Tox. 1, H304

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : None under normal conditions.

Symptoms/effects after ingestion : Risk of lung oedema.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Dry powder. Carbon dioxide. Sand, fire-fighting foam
Unsuitable extinguishing media	:	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Flammable Cleaning Solvent: Flash Point 62C
Explosion hazard	:	No direct explosion hazard.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions	:	Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, vapors or spray.

6.1.1. For non-emergency personnel

Protective equipment	:	Wear recommended personal protective equipment.
Emergency procedures	:	Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist/vapors/spray.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	:	Take up liquid spill into absorbent material.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Not expected to present a significant hazard under anticipated conditions of normal use. Avoid hot surfaces and sources of flame or sparks. Ground all handling equipment.
Precautions for safe handling	:	**This material is a static accumulator. Be sure that all hoses, pumps, and containers are grounded. Avoid sparks or flame!** Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	:	Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Keep in a cool, well-ventilated place away from heat.
Storage conditions	:	Store locked up.
Storage temperature	:	0-40 °C
Packaging materials	:	Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance Name: Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

Form: Vapor

Limit/Standard RCP/TWA: 1200 mg/m3, 171 ppm

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station. Do not use where fire or sparks are present.

8.2.2. Personal protection equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment. Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless.
Appearance	:	Clear Liquid.
Odour	:	none
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	213 °C
Flammability	:	Highly flammable.
Lower explosion limit	:	0,5 vol %
Upper explosion limit	:	6,5 vol %
Flash point (closed cup)	:	64 °C
Auto-ignition temperature	:	Product is not self igniting.
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic @ 40C	:	1,233 mm^2/s
Viscosity, dynamic @ 40C	:	1 mPa·s ,20 °C
Solubility	:	Water: Not miscible
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	0,3 mm Hg
Vapour pressure at 50°C	:	Not available
Density	:	0,811 g/cm^3 (6.76 lbs/gal)
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable
Solvent content: Organic solvents	:	100.0 %
VOC content	:	811 g/liter

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

- Avoid temperatures >200°C
- Avoid open fire, sparks or flame sources
- Avoid static buildup in handling equipment by grounding all parts
- Avoid high concentrations of vapor during use

10.5. Incompatible materials

None

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Naptha, petroleum, hydrotreated, heavy	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat,
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit
LC50 Inhalation - Rat	> 4900 mg/l/4h Animal: rat

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	May be fatal if swallowed and enters airways.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	:	The substance/mixture has no endocrine disrupting properties.

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	Not expected to be harmful to aquatic or terrestrial organisms.
Hazardous to the aquatic environment, short–term (acute)	:	Not expected to be harmful to aquatic or terrestrial organisms.
Hazardous to the aquatic environment, long–term (chronic)	:	Not expected to be harmful to aquatic or terrestrial organisms.

hydrocarbons, c11-c13, isoalkanes, <2% aromatics	
LC50 96h - Fish [1]	>1000 mg/l
EC50 48h - Crustacea [1]	>1000 mg/l
EC50 72h - Algae [1]	>1000 mg/l

12.2. Persistence and degradability

Expected to be inherently biodegradable. Expected to degrade rapidly in air.

12.3. Bioaccumulative potential

This material is not expected to be bioaccumulative.

12.4. Mobility in soil

Material -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids

12.5. Results of PBT and vPvB assessment

Dielectric Solvent DS-100
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance/mixture has no known endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations. Disposal must be done according to official regulations.Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction

Product/Packaging disposal recommendations : Disposal must be done according to official regulations. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible

Additional information : Do not re-use empty containers.

Empty Container Warning : Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.t

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR (ground transport China)	IMDG (sea transport)	IATA (air transport)	ADN (ground transport)	ADM (inland waters)
14.1. UN number or ID number				
Not Regulated	Not Regulated	Not Regulated	Not Regulated	UN 9003
14.2. UN proper shipping name				
				SUBSTANCES WITH 60°C < f.p.<= 100 °C
14.3. Transport hazard class(es)				
	Not Regulated	Not Regulated	Not Regulated	9
14.4. Packing group				
	Not Regulated	Not Regulated	Not Regulated	3
14.5. Environmental hazards				
No	No	No	No	No
No supplementary information available				

14.6. Special precautions for user

None

SECTION 15: Regulatory information

Listed or exempt from listing/notification on the following chemical inventories

AIIC, DSL, ENCS, IECSC, KECI, PICCS, TCSI, TSCA

The national inventory listings are based on the CAS numbers 90622-58-5, 64742-48-9

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. Applicable EU-Regulations

1907/2006 [... on the Registration, Evaluation, Authorisation and Restriction of Chemicals and amendments thereto]

2004/42/CE [on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC.]

98/24/EC [... on the protection of workers from the risk related to chemical agents at work ...]. Refer to Directive for details of requirements.

1272/2008 [on classification, labelling and packaging of substances and mixtures.. and amendments thereto] REACH Restrictions on the man

15.2. Chemical safety assessment

No furtherchemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose

Abbreviations and acronyms:	
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.