

MATERIAL SAFETY DATA SHEET

PRODUCT NAME : DIELECTRIC FLUID A

SECTION 1: IDENTIFICATION OF THE SUBSTANCE /MIXTURE AND OF THE COMPANY /UNDERTAKING

1.1. Product identifier

Product name: EDM Dielectric Fluid A
REACH Registration Number: 01-2119826592-36

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

Identified uses Spark Erosion Fluid Low viscosity process and lubricating oil.
Uses advised against Not for use as fuel.

1.3. Details of the supplier of the safety data sheet

Erodex (UK) Ltd
Park Road,
Tipper Industrial Estate,
B63 2RH
+44 (0)1384 892011
sales@erodex.com

1.4. Emergency telephone number

Emergency tel: +44 (0)1384 892011 (08.00- 17.00 hrs GMT)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical and Chemical Hazards Not classified.
Human health Asp. Tox. 1- H304
Environment Not classified.
Classification (67/548/EEC) Xn;R65.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

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2.2. Label elements

Contains Hydroseal G232H
Label In Accordance With (EC) No. 1272/2008



Signal Word Danger
Hazard Statements

H304 May be fatal if swallowed and enters airways.

Precautionary Statements

P261 Avoid breathing mist.
P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.
P501a Dispose of contents/container to hazardous or special waste collection point.

Supplementary Precautionary Statements

P405 Store locked up.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

3.1. Substances

Hazardous ingredients:

Hydroseal G232H			60-100%
CAS-No.: 64742-46-7	EC No.: 265-148-2	Registration Number: 01-2119826592-36	
Classification (EC 1272/2008)		Classification (67/548/EEC)	
Asp. Tox. 1- H304		Xn;R65.	

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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues.
Inhalation	In case of inhalation of spray mist: Move person into fresh air and keep at rest. Get medical attention if any discomfort continues.
Ingestion	Get medical attention if any discomfort continues. Do not induce vomiting.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

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

General information	If aspiration into the lungs is suspected, eg when vomiting, admit to hospital immediately.
Inhalation	Upper respiratory irritation.
Ingestion	May cause discomfort if swallowed. The product contains mineral oil, which if aspirated into the lungs through vomiting after ingestion, may result in chemical pneumonia.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Irritation of eyes and mucous membranes.

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

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media
Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products
In case of fire, toxic gases (CO, CO₂, NO_x) may be formed. Fire may also create other unidentified organic gases some of which may be toxic.
Unusual Fire & Explosion Hazards
Heat from fire could result in drums bursting

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5.3. Advice for firefighters

Special Fire Fighting Procedures

Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters

Self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Contain spillage with sand or earth. Do not allow to enter drains, sewers or watercourses. The product is insoluble in water and will spread on the water surface.

6.3. Methods and material for containment and cleaning up

Contain spillage with sand or earth. Use sealed containers for reclamation or dispose of at a licensed hazardous waste collection point.

Avoid contact with water. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental

Agency or other appropriate regulatory body. In case of spillage on water prevent the spread by use of suitable barrier equipment

6.4. Reference to other sections

For personal protection, see section 8. See section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.

Storage Class

Miscellaneous hazardous material storage.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Skin protection: Impermeable protective clothing.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA- 8 Hrs	STEL- 15 Min	Notes
Hydroseal G232H	WEL		5 mg/m ³ 60-100%	

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment



Process conditions	Use engineering controls to reduce air contamination to permissible exposure level.
Engineering measures	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.
Respiratory equipment	No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.
Hand protection	The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
Eye protection	If risk of splashing, wear safety goggles or face shield.
Other Protection	Use barrier creams to prevent skin contact.
Hygiene measures	Wash promptly with soap & water if skin becomes contaminated.
Thermal hazards	Not anticipated under normal conditions of use. The product is combustible if heated excessively and an ignition source is applied.
Environmental Exposure Controls	Do not allow product to contaminate land.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Colourless to pale yellow.
Odour	Mild.
Solubility	Insoluble in water Soluble in: Organic solvents.
Initial boiling point and boiling range (°C)	230-270 @ 760 mm Hg
Relative density	0.815 @ 15C
Vapour density	(air=1) >1
Vapour pressure	<0.02 kPa 20C
Viscosity	2.3 cSt @ 40C

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Solubility Value (G/100G H ₂ O@20°C)	<1 mg/l @ 20C
Flash point (°C)	108 typical PM Closed cup.
Auto Ignition Temperature (°C)	Not determined
Flammability Limit- Lower(%)	1%
Flammability Limit- Upper(%)	6%
Partition Coefficient (N-Octanol/Water)	Not determined.
Explosive properties	This product is not considered explosive.
Other Flammability	Product is not flammable but on excessive heating may become combustible.

Material is considered non-oxidizing.

9.2. Other information

Volatility Description	Not considered volatile. Vapours may be emitted on excessive heating. The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOC's may be present.
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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Unlikely to occur under normal conditions of use.

Hazardous Polymerisation

Unlikely to occur.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Acute Toxicity (Oral LD50)

> 5000 mg/kg Rat

Not expected to be highly toxic based on information of ingredients.

Acute Toxicity (Dermal LD50)

> 3160 mg/kg Rabbit

Not expected to be highly toxic based on information of ingredients.

Acute Toxicity (Inhalation LC50)

> 5266 mg/l (vapours) Rat 4 hours

The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

Skin Corrosion/Irritation

The classification criteria are not met. May cause mild skin irritation. Prolonged or repeated skin contact eg. from clothing wet with lubricant may cause dermatitis. Symptoms may include redness, edema, drying, and cracking skin.

Serious eye damage/irritation

May cause mild, short lasting discomfort to eyes.

Respiratory or skin sensitisation

No evidence to suggest the product will be a respiratory sensitiser. Repeated exposure to oil mists may cause respiratory damage.

Not expected to be a skin sensitizer based on information on components.

Carcinogenicity

Carcinogenicity

Not applicable.

Reproductive Toxicity

No data available to suggest the product will cause reproductive toxicity.

Specific target organ toxicity - single exposure

STOT- Single exposure

Not applicable.

Specific target organ toxicity - repeated exposure

STOT- Repeated exposure

Not applicable.

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Aspiration hazard

Viscosity

Kinematic viscosity ≤ 20.5 cSt @ 40 C.

The product contains mineral oil. If aspirated into the lungs e.g. through vomiting after ingestion admit to hospital immediately. Product may be considered an aspiration hazard under CLP regulations.

Poses an aspiration hazard.

General information

This product has low toxicity. Only large volumes may have adverse impact on human health.

Inhalation

Unlikely to be hazardous by inhalation because of the low vapour pressure of the substance at ambient temperature.

Ingestion

No harmful effects expected in amounts likely to be ingested by accident.

Skin contact

Skin irritation is not anticipated when used normally. Repeated exposure may cause skin dryness or cracking.

Eye contact

May cause temporary eye irritation.

Specific effects

Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

12.1. Toxicity

LC 50, 96 Hrs, Fish mg/l >1028

EC 50, 48 Hrs, Daphnia, mg/l 3193

IC 50, 72 Hrs, Algae, mg/l > 10000

12.2. Persistence and degradability

Degradability

The product is not classed as being readily biodegradable by OECD test methods but is considered inherently biodegradable. 74% degradability; 28 days

The product is based on highly refined mineral oils that are considered stable to hydrolysis.

The product is not considered readily biodegradable, albeit the major constituents are expected to ultimately biodegrade.

Biological Oxygen Demand

Not determined.

Chemical Oxygen Demand

Not determined.

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12.3. Bioaccumulative potential

Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Bioaccumulation factor Not known.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility:

The product is non-volatile. The product is insoluble in water and will spread on the water surface.

Henry's Law Constant Not determined.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

General The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

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14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References

Health and Safety at Work Act 1974.

Environmental Listing

The Pollution Prevention and Control Act 1999. Special Waste regulations 1996. Control of Pollution (Oil Storage) (England) Regulations 2001

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

Revision Comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision Date 07/03/17

Revision 4

Risk Phrases In Full

R65 Harmful: may cause lung damage if swallowed.

Hazard Statements In Full

H304 May be fatal if swallowed and enters airways