Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g), Rev. 2012 and GHS Rev 03

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

Product identifier

Product form:	Mixture
Trade name:	DELF 450 FG
Product code:	DELF 450 FG
Recommended application:	Heat Transfer Fluid

Details of the supplier of the safety data sheet

Mokon
2150 Elmwood Ave - Buffalo, NY 14207
716-876-9951

Emergency telephone number:

Tel.: 800-446-4910

SECTION 2: Hazards identification

Classification of the substance or mixture

Asp. Haz 1 – H304

Label elements

GHS label element:	This product is classified and labeled according to the Globally Harmonized System (GHS)
Hazard pictograms:	GHS08
Signal word:	Danger

Hazard Statements:

H304	May be fatal if swallowed and enters airways

Precautionary Statements

P301/310/331	IF SWALLOWED. Immediately call a POISON CONTROL CENTRE. Do not induce vomiting

Classification system

NFPA Rating: Health: 0, Fire:1, Reactivity:0
HMIS Rating: Health: 0, Fire:1, Reactivity:0

Other hazards

Other Hazards: None known

SECTION 3: Composition/information on ingredients

Chemical Characterization:	Mixture
Classification according to GHS:	GHS08
Dangerous Components:	Hydrocarbon, <22 cSt

Component Name	Identification	Classification according to	%

		GHS	
Hydrocarbon	CAS #: 8042-47-5 CAS #: 64742-47-8	GHS08 GHS08 Asp. Haz 1 – H304	55-80% 20-45%
Proprietary Additives	Trade Secret	Not classified	5-10%

SECTION 4: First aid measures

Description of first aid measures

Inhalation: Supply person with fresh air and consult doctor according to symptoms.
Skin contact: Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare),consult a doctor.
Eye contact Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.
Ingestion Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically

SECTION 5: Firefighting measures

Suitable extinguishing media: Water jet spray/foam/CO2/dry extinguisher
Unsuitable extinguishing media: High volume water jet

Special hazards arising from the substance or mixture
In case of fire the following can develop: Oxides of carbon, toxic gases

Advice for firefighters
In case of fire and/or explosion do not breathe fume use protective respirator with independent air supply. According to size of fire use full protection, if necessary. Cool container at risk with water. Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Personal precautions protective equipment: Not required
Environmental precautions: If leakage occurs, dam spillage and resolve leaks as soon as possible. Prevent fluid from entering drainage systems. If fluid accidently enters drainage system alert authorities

Methods and material for containment and cleaning up
Soak up with absorbent material (e.g. universal binding agent, oil-dry, sand, diatomaceous earth) and dispose in accordance with local regulations

Reference to other sections
See section 7 for information on safe handling, see Section 8 for information on personal protection equipment, see Section 13 for disposal information

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

Precautions for safe handling: No special measures required
Information about protection against explosions or fires: No special measures required
Requirements to be met by storerooms: Store in a cool dry place
General guidelines: Ensure good ventilation; avoid contact with eyes or skin

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Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable
Wash hands before breaks and at end of work
Keep away from food, drink and animal feed
Remove contaminated clothing and protective equipment before entering areas in which food is consumed

SECTION 8: Exposure controls/personal protection

Control parameters
No further data; see Section 7

Exposure controls:

Appropriate engineering controls:	Contain with oil absorbing material (oil dry). Remove oil absorbing material and dispose lawfully

Personal protective equipment:

Hand protection:	PVC, neoprene, or nitrite gloves. Gloves should be replaced immediately if damaged or worn
Eye protection:	Eye protection necessary where liquid could be splashed or sprayed
Materials for protective clothing:	PVC, neoprene, or nitrite gloves
Hand protection:	In case of repeated or prolonged contact wear gloves and use moisturizing skin cream
Respiratory protection:	In areas with poor ventilation or in the case of likely misting use appropriate respiratory equipment
Environmental exposure controls:	See section 12
Consumer exposure controls:	PVC gloves. Neoprene or nitrile rubber gloves
Other:	Wash hands thoroughly after exposure. Do not eat drink or smoke during use. Wash contaminated clothing before use

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	Light yellow, clear
Odor:	Characteristic
Odor threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	>430^{O}F (>221^{O}C)
Flash Point:	>290^{O}F (>143^{O}C)
Evaporation Rate:	NA
Flammability (solid, gas)	NA
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Density @ 20^{O}C:	0.83-0.86 g/ml
Bulk density:	NA
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water)	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	4.25 cSt @ 40^{O}C
Explosive properties	NA
Oxidizing properties:	Not determined

Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not applicable

SECTION 10: Stability and reactivity

Reactivity:	Stable under normal conditions
Chemical Stability:	Stable under normal conditions
Possibility of hazardous reactions:	No dangerous reactions known
Conditions to avoid:	See section 7
Incompatible materials:	Strong oxidizing agents, acids
Hazardous decomposition products:	No dangerous decomposition products known

SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2 (classification).

Acute toxicity: Not Classified

DELF 450 FG					
Toxicity/effect	Endpoint	**Value**	**Unit**	**Organism**	**Notes**
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	
Acute toxicity, by inhalation:	LD50	>2500	mg/kg/ 4hr	Rat	

Skin corrosion/irritation:	Not classified – Unlikely to cause harm to harm to skin with brief contact, long term contact may cause dermatitis
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Repeated does toxicity:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
Other information:	No further information available

SECTION 12: Ecological information

DELF 450 FG					
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Notes**
Toxicity to fish:	LD50	>100,000	mg/kg /96hr	Trout	
Toxicity to daphnia:					n.d.a.
Toxicity to algae:					n.d.a.
Persistence and degradability:					n.d.a.
Bio-accumulative potential:					n.d.a.
Mobility in soil:					n.d.a.
Results of PBT and vPvB assessment:					n.d.a.
Other adverse effects:					n.d.a.

SECTION 13: Disposal considerations

Waste treatment methods

For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of

For contaminated packing material

Pay attention to local and national official regulations

Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.
Do not perforate, cut up or weld un-cleaned container.

SECTION 14: Transport information

Transport statements

UN number

DOT, ADN, IMDG, IATA:	Non-regulated material
ADR:	Non-regulated material

UN proper shipping name:

DOT, ADR, ADN, IMDG, IATA:	Non-regulated material

Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA:	Non-regulated material

Packaging Group

DOT, ADR, IMDG, IATA:	Non-regulated material

Environmental hazards

Marine pollutant:	No
Special precautions for users:	None
Transport in bulk according to Annex II: of MARPOL 73/78and IB Code UN "Model Regulation"	Not applicable

SECTION 15: Regulatory information

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

SARA Hazards:	No SARA Hazards
TSCA (Toxic Substances Control Act):	Hydrocarbon - <22 cSt – CAS# 72623-86-0 All other chemical substances in this mixture are included on or are exempted from listing on the TSCA Inventory for Chemical Substances
Proposition 65:	Based on available information this product does not contain any components or chemicals currently known to the State of California to cause cancer, birth defects or reproductive harm at levels which would be subject to Proposition 65

Labeling requirements

GHS label element:	This product is classified and labeled according to the Globally Harmonized System
Hazard pictograms:	GHS08
Signal word	Danger

Component Name	Identification	Classification according to GHS	%
Hydrocarbon	CAS #: 72623-86-0	GHS08 Asp. Haz 1 – H304	90-95%
Proprietary Additives	Trade Secret	Not classified	5-10%

SECTION 16: Other information

These details refer to the product as it is delivered.

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

Any abbreviations and acronyms used in this document:

AC	Article Categories

acc., acc. to	according, according to
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
Art., Art. no.	Article number
ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BOD	Biochemical oxygen demand
CAS	Chemical Abstracts Service
CEC	Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants
CLP	Classification, Labeling and Packaging (REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures)
CTFA	Cosmetic, Toiletry, and Fragrance Association
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EC	European Community
ECHA	European Chemicals Agency
EEA	European Economic Area
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ERC	Environmental Release Categories
ES	Exposure scenario
Fax.	Fax number
gen.	general
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IBC (Code)	International Bulk Chemical (Code)
IC	Inhibitory concentration
LC	lethal concentration
LC50	lethal concentration 50 percent kill
LD50	Lethal Dose, 50% kill
n.a.	not applicable
n.av.	not available
n.c.	not checked
n.d.a.	no data available
NFPA	National Fire Protection Association
ppm	parts per million
UN RTDG	United Nations Recommendations on the Transport of Dangerous Goods
VOC	Volatile organic compounds
WHO	World Health Organization
wwt	wet weight

These statements were made by:
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