



MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 30027

EDC 99-DW

Date of the previous version: 2012-04-03

Revision Date: 2012-02-27

Version 1.04

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	EDC 99-DW
REACH Registration Name	Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics.
REACH registration No	01-2119826592-36
Trade name	-
Pure substance/mixture	Substance

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

Identified uses	Manufacture of substance, Distribution of substance, Formulation & (re)packing of substances and mixtures, Use in Oil and Gas field drilling and production operations, Laboratory activities, Water treatment chemical.***
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1.3. Details of the supplier of the safety data sheet

Supplier	TOTAL FLUIDES 24, cours Michelet. 92800 PUTEAUX. FRANCE Tel: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 82 88
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For further information, please contact:

Contact Point	Service QSE : Tel : +33 (0)1 41 35 33 64 / Fax : +33 (0)1 41 35 33 50 Emergency number 24h/24h: +33 (0)1 41 35 65 00
E-mail Address	rmfs.fds@total.com

1.4. Emergency telephone number

+33 1 49 00 00 49 (24h/24, 7d/7)
France - ORFILA (INRS) Tél : +33 (0)1 45 42 59 59
In France : - PARIS : Hôpital Fernand Widal 200, rue du Faubourg Saint-Denis 75475 Paris Cédex 10 , Tel : 01.40.05.48.48. -
MARSEILLE : Hopital Salvator, 249 bd Ste Marguerite 13274 Marseille cedex 5, Tel : 04.91.75.25.25. - LYON : Hopital Edouard
Herriot, 5 place d'Arsonvol, 69437 Lyon cedex 3, Tel : 04.72.11.69.11. - NANCY : Hopital central, 29 Av du Mal De Lattre de
Tassigny, 54000 Nancy, Tel : 03.83.32.36.36 ou le SAMU : Tel (15)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008



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For the full text of the H-Statements mentioned in this Section, see Section 2.2.

Classification

Aspiration toxicity - Category 1 - H304***

DIRECTIVE 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this Section, see Section 16

Symbol(s)

Xn - Harmful***

Classification

Xn;R65

2.2. Label elements**Labelled according to**

REGULATION (EC) No 1272/2008

Contains Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics

EC-No

934-954-2

Hazard pictograms**Signal Word**

DANGER

H304 - May be fatal if swallowed and enters airways

Precautionary Statements

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331 - Do NOT induce vomiting

2.3. Other hazards**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1. Substance**

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Chemical nature

A complex and variable combination of paraffinic and cyclic hydrocarbons having a carbon number range predominantly of C13 to C16 and boiling in the range of approximately 220°C to 275°C.

The aromatic content is < 0.03% .

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Dir. 67/548)	Classification (Reg. 1272/2008)
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	934-954-2	01-2119826592-36	^	100	Xn;R65	Asp. Tox. 1 (H304)

Additional information

The EC substance definition and related classification & labelling has been developed in the framework of the Regulation (EC) No 1907/2006 (REACH). For information about the related CAS number see section 15 of this MSDS

For the full text of the R-phrases mentioned in this Section, see Section 16

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**4.1. Description of first-aid measures****General advice**

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact

Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.

Skin contact

Remove contaminated clothing and shoes. Wash off with soap and water.

Inhalation

In case of exposure to intense concentrations of vapours, fumes or spray, transport the person away from the contaminated zone, keep warm and allow to rest.

Ingestion

Do not ingest. If swallowed then seek immediate medical assistance. Risk of product entering the lungs on vomiting after ingestion. In this case, the casualty should be sent immediately to hospital.

Protection of First-aiders

Use personal protective equipment.

4.2. Most important symptoms and effects, both acute and delayed**Eye contact**

Burning feeling and temporary redness.

Skin contact

Prolonged or repeated contact may dry skin and cause irritation.

Inhalation

The inhalation of vapours or aerosols may be irritating for the respiratory tract and for mucous membranes.
Vapors inhaled in strong concentration have a narcotic effect on the central nervous system.



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Ingestion If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours) .
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.***

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Suitable Extinguishing Media Foam. Dry powder. Carbon dioxide (CO₂). Water spray.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

5.3. Advice for fire-fighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit. In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Other information Cool containers / tanks with water spray.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

General Information Use personal protective equipment.
Evacuate non-essential personnel.
Ensure adequate ventilation, especially in confined areas.
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Do not touch or walk through spilled material.

6.2. Environmental precautions

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General Information

Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills. The product should not be allowed to enter drains, water courses or the soil. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up**Methods for cleaning up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Following product recovery, flush area with water.

6.4. Reference to other sections**Personal Protective Equipment**

See Section 8 for more detail.

Waste treatment

See section 13.

Other information

Remove all sources of ignition.

7. HANDLING AND STORAGE**7.1. Precautions for safe handling****Advice on safe handling**

For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist.
Avoid contact with skin, eyes and clothing.

Technical measures

Ensure adequate ventilation.
Do not spray at high pressure (> 3 bar) .

Prevention of fire and explosion

Handle away from any source of ignition (open flame and sparks) and heat (hot manifolds or casings). Do not smoke.
Take precautionary measures against static discharges.

Hygiene measures

Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke.
Regular cleaning of equipment, work area and clothing is recommended. Do not dry hands with rags that have been contaminated with product. Do not use abrasives, solvents or fuels.
Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

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Technical measures/Storage conditions

Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts.
Storage installations should be designed with adequate bunds so as to prevent ground or water pollution in case of leaks or spills.
Keep in a bunded area. Keep in a dry, cool and well-ventilated place.
Keep away from open flames, hot surfaces and sources of ignition. Ground/bond containers, tanks and transfer/receiving equipment. Store at room temperature.
Keep containers tightly closed and properly labelled.

Materials to Avoid

Strong acids. Oxidizing agents.

Packaging material

Keep only in the original container or in a suitable container for this kind of product. steel . Stainless steel.

7.3. Specific end uses**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Exposure limits**

oil mist : 10mg/m³, for 15 minutes
oil mist : 5mg/m³, for 8 hours

Legend

See section 16

Derived No Effect Level (DNEL)

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified

8.2. Exposure controls**Occupational Exposure Controls****Engineering Measures**

When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
Apply technical measures to comply with the occupational exposure limits.

Personal Protective Equipment**General Information**

Protective engineering solutions should be implemented and in use before personal protective equipment is considered.
These recommendations apply to the product as supplied.
If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers.

Respiratory protection

For rescue and maintenance work in storage tanks use self-contained breathing apparatus. In an emergency or for exceptional short-lasting jobs in an atmosphere polluted by the product, it is necessary to wear protective respiratory equipment.
The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

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Eye Protection If splashes are likely to occur, wear: Safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots.

Hand Protection Impervious gloves, aliphatic hydrocarbon resistant.

Repeated or prolonged exposure			
Glove material	Glove thickness	Break through time	Remarks
Nitrile rubber***	> 0.55 mm***	> 480 min	EN 374
Fluorinated rubber***	(*)***	> 480 min***	EN 374 (*) any thickness***
PVA***	(*)***	> 480 min***	EN 374 (*) any thickness***

In case of contact through splashing:			
Glove material	Glove thickness	Break through time	Remarks
Nitrile rubber***	> 0.38 mm***	> 60 min	EN 374
Neoprene	> 0.75 mm***	> 60 min	EN 374

Environmental exposure controls

General Information Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Color		colorless	
Physical State @20°C		liquid	
Odor		Hydrocarbon-like	
Property	Values	Remarks	Method
pH		Not applicable	
Boiling point/boiling range	230 - 275 °C 446 - 527 °F		ISO 3405 ISO 3405
Flash point	101 °C 214 °F		ASTM D 93 ASTM D 93.
Evaporation rate		No information available	
Flammability Limits in Air			
upper	6 %		
Lower	1 %		
Vapor Pressure	0.03 hPa	@ 20 °C	
Vapor density		No information available	
Density	813 kg/m ³	@ 15 °C	ISO 12185
Water solubility		Substance is a UVCB. Standard tests for this endpoint are not appropriate***	
Solubility in other solvents		Soluble in many common organic solvents***	
logPow		Not applicable	
Autoignition temperature	> 230 °C		ASTM E 659



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Viscosity, kinematic	> 446 °F	ASTM E 659
Explosive properties	2.3 mm ² /s @ 40 °C	ISO 3104
Oxidizing Properties	Not considered explosive based on chemical structure and oxygen balance considerations	
Possibility of hazardous reactions	This product is not considered oxidising based on chemical structure considerations	
	None under normal processing***	

9.2. Other information

Surface tension	0.0265 N/m	@ 25 °C	EN 14370
Pour point	-51 °C		ASTM D97

10. STABILITY AND REACTIVITY**10.1. Reactivity****10.2. Chemical stability**

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous Reactions None under normal processing.

10.4. Conditions to Avoid

Conditions to Avoid Heat, flames and sparks. Take precautionary measures against static discharges.

10.5. Incompatible Materials

Materials to Avoid Strong acids. Oxidizing agents.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute toxicity Local effects Product Information**

Skin contact Not classified.
Prolonged or repeated contact may dry skin and cause irritation.

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Eye contact	Not classified. Symptoms :. Burning feeling and temporary redness.
Inhalation	. The inhalation of vapours or aerosols may be irritating for the respiratory tract and for mucous membranes. Vapors inhaled in strong concentration have a narcotic effect on the central nervous system.
Ingestion	. If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours) . Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.***

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	LD50 > 5000 mg/kg bw (rat - OECD 401)	LD50 (24h) > 3160mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5266 mg/m ³ (aerosol) (rat - OECD 403)

Sensitization

Sensitization Not classified as a sensitizer.

Specific effects

Carcinogenicity	The current toxicological knowledge allows to not classify the product as a carcinogen.
Mutagenicity	The mutagenic potential of the substance has been extensively studied in a range of in-vivo and in-vitro assays.
Germ Cell Mutagenicity	Genetic toxicity : negative.
Reproductive toxicity	Studies in rats with the substance did not show any effect on reproductive performance.
Developmental Toxicity	Results of guideline developmental toxicity studies on the substance and OECD developmental toxicity screening studies showed no evidence of developmental toxicity in rats.

Repeated Dose Toxicity

Target Organ Effects (STOT)

Specific target organ systemic toxicity (single exposure)	No known effect based on information supplied.
Specific target organ systemic toxicity (repeated exposure)	No known effect based on information supplied.
Aspiration toxicity	The fluid can enter the lungs and cause damage (chemical pneumonitis, potentially fatal).

Other information

Other adverse effects Frequent or prolonged skin contact destroys the lipoid cutaneous layer and may cause dermatitis.

12. ECOLOGICAL INFORMATION



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12.1. Toxicity**Acute aquatic toxicity - Product Information****Acute aquatic toxicity - Component Information**

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics ^Λ	ErL50 (72h) > 10000 mg/l (Skeletonema costatum - ISO 10253)	LL50 (48h) > 3193 mg/l (Acartia tonsa - ISO 14669)	LL50 (96h) > 1028 mg/l (Scophthalmus maximus - OECD 203)	

Chronic aquatic toxicity - Product Information**Chronic aquatic toxicity - Component Information**

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics ^Λ		NOELR (21d) > 1000 mg/l (Daphnia magna - QSAR Petrotox)	NOELR (28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	

Effects on terrestrial organisms

No information available.

12.2. Persistence and degradability**General Information**

Readily biodegradable (74 % after 28 days).

Biodegradation						
Type	Method	Sampling time	Specific effects	Values	Unit	Biodegradability
	OECD 306	28 days		74	%	Readily biodegradable

12.3. Bioaccumulative potential**Product Information**

Measured experimental data on hydrocarbon UVCB substances are not meaningful, since each of the constituents is likely to behave differently.

logPow

Not applicable

Component Information**12.4. Mobility in soil**



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Soil	Substance is a UVCB. Standard tests for this endpoint are not appropriate.
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12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	This substance is considered not to be PBT and vPvB.
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12.6. Other adverse effects

General Information	No information available.
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13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Waste from Residues / Unused Products	Dispose of in accordance with the European Directives on waste and hazardous waste.
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Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
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EWC Waste Disposal No.	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.
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14. TRANSPORT INFORMATION

<u>ADR/RID</u>	Not regulated
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<u>IMDG/IMO</u>	Not regulated
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<u>ICAO/IATA</u>	Not regulated
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<u>ADN</u>	Not regulated
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15. REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union****REACH**

The EC substance definition is included in the CAS related number description for global inventory entries



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Other regulations

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

Related CAS	64742-46-7
EINECS/ELINCS	Complies
TSCA	Complies
DSL	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
NZIoC	Complies

Legend**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**NZIoC** - New Zealand Inventory of Chemicals**Further information****15.2. Chemical Safety Assessment**

Chemical Safety Assessment A Chemical Safety Assessment has been carried out for this substance

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R65 - Harmful: may cause lung damage if swallowed

Full text of H-Statements referred to under sections 2 and 3

H304 - May be fatal if swallowed and enters airways***

Abbreviations, acronyms

bw = body weight

bw/day = body weight/day



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Legend Section 8

+	Sensitizer	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

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Revision Note (M)SDS sections updated: 4, 8, 9, 11, 16.***

Further information

This product is classified as R65 «Harmful: may cause lung damage if swallowed» and/or H304 «May be fatal if swallowed and enters airways». The risk relates to potential for aspiration. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific hazard. An exposure scenario is not required.

Other uses than these listed under section 1.2 may have been foreseen for the substance(s) contained in the product. Please contact us if your use is not listed under section 1.2***

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the safety data sheet