

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Substance  
Substance name : DFO  
CAS-No. : 54078-29-4  
Product code : B-79500 (1 gram), B-79600 (5 gr), B-79510 (10 gr), B-79525 (25 gr)  
Type of product : Pure substance

**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 : Chemical used in reagents for developing fingerprints on paper.

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

BVDA International BV  
Emrikweg 31  
P.O. Box 2323  
2031 BT Haarlem - Nederland  
T +31(0)23-5424708 - F +31(0)23-5322358  
[Info@bvda.nl](mailto:Info@bvda.nl) - [www.bvda.com](http://www.bvda.com)

**1.4. Emergency telephone number**

Country	Official advisory body	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Acute toxicity (oral), Category 4 H302  
Acute toxicity (dermal), Category 4 H312  
Skin corrosion/irritation, Category 2 H315  
Serious eye damage/eye irritation, Category 2 H319  
Full text of H statements : see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS07

CLP Signal word

: Warning

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Hazard statements (CLP)	: H302 - Harmful if swallowed. H312 - Harmful in contact with skin. H315 - Causes skin irritation. H319 - Causes serious eye irritation.
Precautionary statements (CLP)	: P280 - Wear protective gloves, protective clothing, eye protection.. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
DFO	(CAS-No.) 54078-29-4	100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice. Respiratory arrest: artificial respiration or oxygen. Keep watching the victim. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: After contact with skin, wash immediately and thoroughly with water and soap.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes.
First-aid measures after ingestion	: Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

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

No additional information available

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : ABC powder. Water spray. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: No data available on direct fire hazard. No data available on indirect fire hazard.
Explosion hazard	: No data available on direct explosion hazard. No data available on indirect explosion hazard.
Reactivity in case of fire	: On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide). Reacts violently with (strong) oxidizers.

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### 5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind.
Firefighting instructions	: Dilute toxic gases with water spray.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses. Protective clothing.

#### 6.1.2. For emergency responders

Protective equipment : Do not get in eyes, on skin, or on clothing.

### 6.2. Environmental precautions

Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

For containment	: If reacting: dilute combustible/toxic gases/vapours. Dam up the solid spill.
Methods for cleaning up	: Take collected spill to manufacturer/competent authority. Solid spill: shovel into synthetic bags. Prevent dust cloud formation. Clean contaminated surfaces with an excess of water.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Avoid raising dust.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in original container.
Storage area	: Store in a dry area. Store at room temperature.
Special rules on packaging	: closing. dry.
Packaging materials	: No data available.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Hand protection:

Gloves

#### Eye protection:

In case of dust production: protective goggles. Safety glasses

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### Skin and body protection:

Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing

### Respiratory protection:

Dust production: dust mask with filter type P2

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Molecular mass	: 182,18 g/mol
Colour	: Yellow.
Odour	: Odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 229 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Moderately soluble in water. Water: 1 g/l
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide). Reacts violently with (strong) oxidizers.

### 10.2. Chemical stability

Stable under normal conditions.

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### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

No additional information available

### SECTION 14: Transport information

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

#### 14.1. UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

#### 14.3. Transport hazard class(es)

<b>ADR</b>	
Transport hazard class(es) (ADR)	: Not applicable
<b>IMDG</b>	
Transport hazard class(es) (IMDG)	: Not applicable
<b>IATA</b>	
Transport hazard class(es) (IATA)	: Not applicable
<b>ADN</b>	
Transport hazard class(es) (ADN)	: Not applicable
<b>RID</b>	
Transport hazard class(es) (RID)	: Not applicable

#### 14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

#### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

#### 14.6. Special precautions for user

##### Overland transport

No data available

##### Transport by sea

No data available

##### Air transport

No data available

##### Inland waterway transport

No data available

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### Rail transport

No data available

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

DFO is not on the REACH Candidate List

DFO is not on the REACH Annex XIV List

DFO is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

DFO is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

##### Germany

Water hazard class (WGK) : Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting : The substance is not listed

giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting : The substance is not listed

giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting : The substance is not listed

giftige stoffen – Ontwikkeling : The substance is not listed

##### Denmark

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

SDS EU (REACH Annex II)

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.