

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 1 of 10

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

1.1. Product identifier

Sudan IV in Ethylenglycol REF 12575

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

Use of the substance/mixture

laboratory reagent

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	MORPHISTO GmbH	
Street:	Weismüllerstr. 45	
Place:	D-60314 Frankfurt am Main	
Telephone:	+49 (0) 69 / 400 3019-60	Telefax: +49 (0) 69 / 400 3019-64
e-mail:	info@morphisto.de	
Internet:	http://www.morphisto.de	

1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Harmful if swallowed.

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

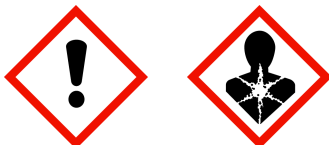
Regulation (EC) No. 1272/2008

Hazard components for labelling

ethanediol, ethylene glycol

Signal word: Warning

Pictograms:



Hazard statements

H302

Harmful if swallowed.

H373

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P264

Wash hands thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P314

Get medical advice/attention if you feel unwell.

P501

Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 2 of 10

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	GHS Classification	
107-21-1	ethanediol, ethylene glycol	95 - <= 100 %
	203-473-3	
	603-027-00-1	
	01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373	

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

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

@1501.B015819 In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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**

Carbon dioxide (CO2). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO2).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 3 of 10

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
 Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

Safe handling: see section 7
 Personal protection equipment: see section 8

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
 Treat the recovered material as prescribed in the section on waste disposal.
 Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Disposal: see section 13

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Advice on safe handling

Wear suitable protective clothing. See section 8.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 20°C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 4 of 10

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
107-21-1	ethanediol, ethylene glycol		
Worker DNEL, long-term	inhalation	local	35 mg/m ³
Worker DNEL, long-term	dermal	systemic	106 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
107-21-1	ethanediol, ethylene glycol	
Freshwater	10 mg/l	
Freshwater (intermittent releases)	10 mg/l	
Marine water	1 mg/l	
Freshwater sediment	37 mg/kg	
Marine sediment	37 mg/kg	
Micro-organisms in sewage treatment plants (STP)	199,5 mg/l	
Soil	1,53 mg/kg	

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation.

Protective and hygiene measures

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). DIN EN 166

Hand protection

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

 Breakthrough time \geq 8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

 Breakthrough time \geq 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

 Breakthrough time \geq 8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

 Breakthrough time \geq 8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

 Breakthrough time \geq 8 h

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 5 of 10

Skin protection

Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-exceeding exposure limit values

-insufficient ventilation and aerosol or mist formation

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Type: P1-3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

No special precautionary measures are necessary.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	not determined
Odour:	characteristic
pH-Value (at 20 °C):	6 - 7,5

Changes in the physical state

Melting point:	-14 to -12 °C
Initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	111 °C
Sustaining combustion:	Not sustaining combustion

Explosive properties

Heating: Vapors may form explosive mixtures with air.

Lower explosion limits:	3,2 vol. %
Upper explosion limits:	43 vol. %
Ignition temperature:	not determined

Auto-ignition temperature

Gas:	not determined
Decomposition temperature:	not determined

Oxidizing properties

none

Vapour pressure:	0,12 hPa
Density:	1,11 g/cm ³
Water solubility:	completely miscible

Solubility in other solvents

not determined

Partition coefficient:	not determined
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Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 6 of 10

Viscosity / dynamic: (at 25 °C)	16 - 18 mPa·s
Viscosity / kinematic:	not determined
Flow time:	not determined
Vapour density:	not determined
Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined

9.2. Other information

Solid content:	not determined
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SECTION 10: Stability and reactivity
10.1. Reactivity

Heating: Vapors may form explosive mixtures with air.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Explosion risk in contact with: perchloric acid.

The substance can react dangerously with: Aluminum, chlorosulfonic acid, chromosulfuric acid, chromium trioxide, chromyl chloride, potassium dichromate, potassium permanganate, sodium hydroxide, sodium hypochlorite, sodium peroxide, strong oxidizers, sulfuric acid, oleum phosphorus pentasulfide, fuming nitric acid, silver chlorate

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

 Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.
 Aluminium. Galvanized sheet iron. Galvanized steel.

10.6. Hazardous decomposition products

 Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).

Further information

This product is hygroscopic.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Toxicokinetics, metabolism and distribution

@1718.B017281.

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 500,3 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-21-1	ethanediol, ethylene glycol				
	oral	LD50 (7712) mg/kg	Rat	ECHA Dossier	

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 7 of 10

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (ethanediol, ethylene glycol)

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

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SECTION 12: Ecological information
12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
107-21-1	ethanediol, ethylene glycol					
	Acute fish toxicity	LC50 mg/l	72860	96 h	Pimephales promelas	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna	ECHA Dossier

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
107-21-1	ethanediol, ethylene glycol				
	OECD 301A / ISO 7827 / EEC 92/69 annex V, C.4-A	90-100%	10	ECHA Dossier	
	Readily biodegradable (according to OECD criteria).				

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethanediol, ethylene glycol	-1,36

12.4. Mobility in soil

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12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

@1718.B017281.

Further information

Do not allow to enter into surface water or drains.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 8 of 10

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 9 of 10

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.**14.4. Packing group:** No dangerous good in sense of this transport regulation.**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Refer to section 6-8

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

not relevant

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional informationThe mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): 3**National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

SECTION 16: Other information**Changes**

Rev. 1.0; Initial release: 13.06.2019

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen

AGW: Arbeitsplatzgrenzwert

AVV: Abfallverzeichnisverordnung

CAS Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EAKV: Europäisches Abfallverzeichnis gemäß Entwurf Abfallverzeichnisverordnung

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

ECHA: European Chemicals Agency

EWC: European Waste Catalogue

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sudan IV in Ethylenglycol REF 12575

Revision date: 14.02.2020

Product code: 12575.xxxxx

Page 10 of 10

h: hour

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect level

NLP: No-Longer Polymers

N/A: not applicable

OECD: Organisation for Economic Co-operation and Development

PNEC: predicted no effect concentration

PBT: Persistent bioaccumulative toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

REACH: Registration, Evaluation, Authorisation of Chemicals

SVHC: substance of very high concern

TRGS Technische Regeln fuer Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe

WGK: Wassergefaehrungsklasse

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
STOT RE 2; H373	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H373	May cause damage to organs (kidneys) through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)