



Safety Data Sheet

According to Regulation (EC) 1907/2006



6409 1,4-Dithiothreitol

Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation

Name:

1,4-Dithiothreitol

1.2 Synonym:

Cleland's Reagent, DTT, threo-1,4-Dimercapto-2,3-Butanediol

1.3 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

1.4 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: product.safety@panreac.com

Emergencies:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) n° 1272/2008.

Acute Tox. 4

Eye Irrit. 2

Skin Irrit. 2

Hazard Pictograms



Signal word

Warning

Hazard statements

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

Precautionary statements

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

Classification (67/548/CEE or 1999/45/CE).

Xn Harmful
R36/38
R22

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

Component Composition/Information

Name: 1,4-Dithiothreitol

Formula: HSCH₂(CHOH)₂CH₂SH M.= 154,25 CAS [3483-12-3]

EC number (EINECS): 222-468-7

First aid

4.1 General indications:

4.2 Inhaling:

4.3 Contact with the skin:

4.4 Eyes:

4.5 Swallowing:

Fire-fighting means

5.1 Suitable fire-extinguishing means:

5.2 Fire-fighting means which must NOT be used:

5.3 Special risks:

5.4 Protective equipment:

Measures to be taken in the event of accidental spillage

6.1 Individual precautions:

6.2 Precautions for care of the environment:

6.3 Methods for collection/cleaning:

Handling and storage

7.1 Handling:

7.2 Storage:

Staff exposure/protection controls

8.1 Technical protective measures:

8.2 Exposure limit control:

8.3 Respiratory protection:

8.4 Hand protection:

8.5 Eye protection:

8.6 Individual hygiene measures:

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

Physical and chemical properties

Appearance: solid

Colour: White

Granulometry:

Odour:

pH:

Melting point/freezing point: 42 - 43 °C

Initial boiling point and boiling range: 125 - 130 °C

Flash point:

Flammability (solid, gas):

Upper/lower flammability or explosive limits:

Vapour pressure:

Vapour density:

Relative density:

Solubility: Soluble in water, ethanol, acetone.

Partition coefficient: n-octanol/water:

Auto-ignition temperature:

Decomposition temperature:

Viscosity:

Stability and reactivity

10.1 Conditions which should be avoided:

10.2 Matter which should be avoided:

10.3 Hazardous decomposition products:

10.4 Complementary information:

Toxicological information

- **Acute toxicity:**

LD50 oral rat : 400 mg/kg

LD50 ipr mus : 154 mg/kg

LD50 ims mus : 108 mg/kg

- **Dangerous effects for health:**

Environmental information

12.1 Mobility:

12.2 Ecotoxicity:

12.3 Degradability:

12.4 Accumulation:

12.5 Other possible effects on the environment:

Considerations regarding elimination

13.1 Substance or preparation:

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

13.2 Contaminated containers:

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

Information concerning transport

Overland (ADR):

By sea (IMDG):

By air (ICAI-IATA):

Regulatory information

Other information

Other precautionary statements

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

Labelling (65/548/CEE or 1999/45/CE)

R-phrases(s):	R36/38 Irritating to eyes and skin. R22 Harmful if swallowed.
S-phrases(s):	S24/25 Avoid contact with skin and eyes. S46 If swallowed, seek medical advice immediately and show this container or label. S21 When using do not smoke.

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.

In respect of the previous review, changes have been made to the following sections: 2, 3, 15

Date published: 3.11.10

Review number and date: 3 3.11.10