

SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

Last changed: 01/11/2005

Internal No.:

Replaces date:

Denaturation Solution

1. IDENTIFICATION OF PRODUCT AND COMPANY

TRADE NAME	Denaturation Solution
APPLICATION	Laboratory chemicals

Producer/importer

Company	Dynal Biotech Ltd.
Address	11 Bassendale Road-Croft Business Park Bromborough
Postal code	Wirral CH62 3QL
Country	UK
Telephone	+44 151 346 1234
Fax	+44 151 345 1223

Emergency Telephones

Emergency Phone	Information
+44 08 45 46 47	NHS Direct

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	water	231-791-2	7732-18-5	80 - 98 %	No classification required
2	caustic soda, sodium hydroxide	215-185-5	1310-73-2	1 - 5 %	C,R35
3	disodium dihydrogen ethylenediaminetetraacetate	205-358-3	6381-92-6	1 - 5 %	Xn,R22
4	sodium hydrogen 4,4'-(3H-2,1-benzoxathiol-3-ylidene)bis[5-methyl-2-(1-methylethyl)phenolate]S,S-dioxide	263-650-6	62625-21-2	0 - 0,1 %	No classification required

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment, Carc. = Carcinogenic, Mut. = Mutagenic, Repr. = Reproductive

INGREDIENT COMMENTS

R-phrases mentioned in section 2 are listed up in section 16 with complete text.

3. HAZARDS IDENTIFICATION



Irritating

HEALTH

Irritating to eyes and skin.

FIRE AND EXPLOSION

Not combustible.

ENVIRONMENT

Not regarded as dangerous for the environment.

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4. FIRST AID MEASURES

GENERAL

Move to fresh air, keep the patient warm and at rest. If the patient is unconscious, but breathing, maintain open airways and place in stable position on one side. Give artificial respiration and/or heart massage, if necessary.

INHALATION

See "General". Provide rest, warmth and fresh air. Seek medical attention if any signs of unconsciousness or discomfort develop.

SKIN CONTACT

Wash the skin immediately with soap and water. Remove contaminated clothing, watches etc. Get medical advice if discomfort develops.

EYE CONTACT

Immediately rinse with water. Remove any contact lenses and continue rinsing with water for at least 15 minutes (keep the eyelids open). Contact physician if symptoms appears.

INGESTION

DO NOT INDUCE VOMITING! Rinse nose, mouth and throat with water. Drink a few glasses of water. Contact physician if symptoms appears.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use extinguishing media appropriate for surrounding fire.

EXTINGUISHING METHODS

Protect against heat, use water to cool containers. Move container from fire area if it can be done without risk. Fight fire from a well-protected position.

FIRE AND EXPLOSION HAZARDS

Not combustible. Dangerous products of decomposition: carbon monoxide, carbon dioxide and nitrogen oxides. Sulphur oxides (SO_x)

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

General: Evacuate all personnel, use protective equipment for fire fighting. Use a portable breathing apparatus when the product is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Provide good ventilation. Wear necessary protective equipment.

ENVIRONMENTAL PRECAUTIONS

Bank in the discharge. Prevent discharges into the sewage system, watercourses or ground.

METHODS FOR CLEANING UP

Absorb in an inert material (sand, vermiculite, etc.) and collect into a suitable container. Collect and reclaim or dispose in sealed containers in licensed waste. Clean with water.

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7. HANDLING AND STORAGE

HANDLING ADVICE

Use personal protective equipment. Avoid contact with skin and eyes.

STORAGE

Keep in cool, dry, ventilated storage and closed containers.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

EXPOSURE CONTROL

Provide good ventilation. Wash at the end of each work shift and before eating, smoking and using the toilet. Eye wash facilities and emergency shower must be available when handling this product.

RESPIRATORY PROTECTION

Respiratory protection is not required for normal use. If ventilation is insufficient, use a respirator with A/P2 filter.

EYE PROTECTION

Tight-fitting goggles if risk of splashes or direct contact.

HAND PROTECTION

Use protective gloves of impervious material, e.g. rubber/plastic. Breakthrough time not determined as preparation. Change gloves often.

OEL value

Ingredient name	Cas nr.	Interval	ppm	mg/m3	Year	Notes
caustic soda, sodium hydroxide	1310-73-2	15 min.		2,0	2005	

RECOMENDED MONITORING PROCEDURES

When evaluating exposure, consider suitable method for sampling, and evaluate if stationary or mobile sampling is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid.
Water solubility Soluble in water.

10. STABILITY AND REACTIVITY

STABILITY

Stable under recommended storage and handling conditions.

MATERIALS TO AVOID

Avoid contact with strong oxidizers.

11. TOXICOLOGICAL INFORMATION

INHALATION

Inhalation may cause irritation of the respiratory organs.

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SKIN CONTACT

Irritating to skin.

EYE CONTACT

Irritating to eyes.

INGESTION

May cause discomfort if swallowed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Not regarded as dangerous for the environment.

MOBILITY

Water soluble.

CONCLUSION

Prevent discharges into the sewage system, watercourses or lakes.

13. DISPOSAL CONSIDERATIONS

GENERAL REGULATIONS

Treat as dangerous waste. Dispose of as hazardous waste in compliance with local and national regulations. Empty packaging is taken for material recycling, with labelling and warning labels left in place.

CATEGORY OF WASTE

EWC must be evaluated at the end of usage, possibly EWC: 16 05 06 laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

OTHER INFORMATION

Not classified as dangerous goods.

15. REGULATORY INFORMATION



Irritating

EC-Label No Yes N/A

COMPOSITION

caustic soda, sodium hydroxide (1 - 5 %), disodium dihydrogen ethylenediaminetetraacetate (1 - 5 %), sodium hydrogen 4,4'-(3H-2,1-benzoxathiol-3-ylidene)bis[5-methyl-2-(1-methylethyl)phenolate]S,S-dioxide (0 - 0,1 %)

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R-PHRASES

Nr.	R-Phrase text
R36/38	Irritating to eyes and skin.

S-PHRASES

S24/25 Avoid contact with skin and eyes.

S37/39 Wear suitable gloves and eye/face protection.

REFERENCES

Directive 1999/45/EC.

Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances.

Directiv 2001/58/EC (91/155/EEC).

European Waste Catalogue (EWC 2002).

Regulations relating to transport of dangerous goods: ADR, RID, IMDG and IATA/ICAO.

Occupational exposure limits (EH40/2002)

EU-DIRECTIVES

EU-directiv: 1999/45/EC. EU-directiv: 91/155/EEC. EU-directiv: 2001/58/EC.

16. OTHER INFORMATION



VENDOR NOTES

The material safety data sheet is quality assured by Pride Chess in accordance with Norwegian regulations.

Pride Chess applies a quality assurance system in accordance with ISO 9001:2000.

Revised by: Solvor Hetlelid

Pride Chess is not responsible for any incorrect information from the producer of this product.

LIST OF RELEVANT R-PHRASES

Nr.	R-Phrase text
R22	Harmful if swallowed.
R35	Causes severe burns.
R36/38	Irritating to eyes and skin.

ISSUED:

24/05/2005

QUALITY ASSURANCE OF SDS

The information developed by Dynal Biotech ASA relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Dynal Biotech ASA has undertaken a quality assurance and warrants that the information in this data sheet is to the best of Dynal Biotech ASA knowledge and believed accurate and reliable as of the date indicated. It is user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

REVISION HISTORY

Version	Rev. date	Responsible	Changes
1.0.0	24/05/2005	Marta Teigland	Preparation
2.0.0	01/11/2005	Solvor Hetlelid	Revision, regulations

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SDS prepared by

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