

# SAFETY DATA SHEET

## Calcofluor White Reagent

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

#### 1.1. Product identifier

**Product name** Calcofluor White Reagent  
**Product number** PL.392

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

**Identified uses** Laboratory reagent.  
**Uses advised against** No specific uses advised against are identified.

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

**Supplier** Pro-Lab Diagnostics  
3 Bassendale Road  
Wirral  
Merseyside  
CH62 3QL  
Tel: 0151 353 1613  
Fax: 0151 353 1614  
mowen@pro-lab.com

#### 1.4. Emergency telephone number

**Emergency telephone** +44 (0)151 353 1613 Monday to Friday 9.00 to 17.00  
+44 (0)7714 429 646 outside the above hours

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification

**Physical hazards** Not Classified  
**Health hazards** Carc. 1B - H350  
**Environmental hazards** Not Classified

**Classification (67/548/EEC or 1999/45/EC)** Carc. Cat. 2 R45

#### 2.2. Label elements

##### Pictogram



**Signal word** Danger

**Hazard statements** H350 May cause cancer.

**Precautionary statements** P201 Obtain special instructions before use.  
P280 Wear protective clothing, gloves, eye and face protection.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with national regulations.

## Calcofluor White Reagent

**Contains** tetrasodium 6,6'-((3,3'-dimethyl-(1,1'-biphenyl-4,4'diyl)bis(azo)bis(4-amino-5-hydroxy-1,3-naphthalenedisulphonate)

**Supplementary precautionary statements** P202 Do not handle until all safety precautions have been read and understood.  
P405 Store locked up.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>4,4'-bis[4-[bis(2-Hydroxyethyl)amino]-6-anilino-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonic acid</b>	<b>1 - &lt;2.5%</b>
CAS number: 4404-43-7	EC number: 224-548-7
<b>Classification</b> Eye Irrit. 2 - H319	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xi; R36
<b>Tetrasodium 6,6'-((3,3'-dimethyl-(1,1'-biphenyl-4,4'diyl)bis(azo)bis(4-amino-5-hydroxy-1,3-naphthalenedisulphonate)</b>	<b>0.5 - &lt;1%</b>
CAS number: 314-13-6	EC number: 206-242-5
<b>Classification</b> Acute Tox. 3 - H301 Carc. 1B - H350	<b>Classification (67/548/EEC or 1999/45/EC)</b> T; R25. Carc. Cat. 2 R45

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
<b>Skin contact</b>	Wash skin thoroughly with soap and water.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse.

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

<b>General information</b>	Anticipated carcinogen.
<b>Inhalation</b>	Irritation of nose, throat and airway.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact</b>	May cause temporary eye irritation.

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

**Notes for the doctor** The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

## Calcofluor White Reagent

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

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

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.

#### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Use protective equipment appropriate for surrounding materials.

### SECTION 6: Accidental release measures

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

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

#### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up** Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

#### 6.4. Reference to other sections

**Reference to other sections** See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations.

**Advice on general occupational hygiene** Avoid contact with eyes and prolonged skin contact.

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

**Storage precautions** Store in a cool and well-ventilated place.

#### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

**Ingredient comments** No exposure limits known for ingredient(s).

#### 8.2. Exposure controls

**Eye/face protection** No specific eye protection required during normal use.

## Calcofluor White Reagent

<b>Hand protection</b>	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
<b>Hygiene measures</b>	No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

### SECTION 9: Physical and Chemical Properties

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

<b>Appearance</b>	Liquid.
<b>Colour</b>	Blue.
<b>Odour</b>	Odourless.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not determined.
<b>Melting point</b>	Not relevant.
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Flammability (solid, gas)</b>	Not relevant.
<b>Upper/lower flammability or explosive limits</b>	Not relevant.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	Not determined.
<b>Bulk density</b>	Not determined.
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not relevant.
<b>Decomposition Temperature</b>	Not relevant.
<b>Viscosity</b>	Not determined.
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

#### 9.2. Other information

<b>Other information</b>	No information required.
--------------------------	--------------------------

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
-------------------	---

## Calcofluor White Reagent

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Will not polymerise.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid excessive heat for prolonged periods of time.

### 10.5. Incompatible materials

**Materials to avoid** No specific material or group of materials is likely to react with the product to produce a hazardous situation.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** None at ambient temperatures. Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE oral (mg/kg)** 20,000.0

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

#### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Carc. 1A - H350 May cause cancer.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

## Calcofluor White Reagent

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

### Aspiration hazard

**Aspiration hazard** Not anticipated to present an aspiration hazard, based on chemical structure.

### Toxicological information on ingredients.

#### 4,4'-bis[4-[bis(2-Hydroxyethyl)amino]-6-anilino-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonic acid

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** > 10000 mg/kg, Rat REACH dossier information. Based on available data the classification criteria are not met.

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** > 2000 mg/kg Rat REACH dossier information. Based on available data the classification criteria are not met.

##### Skin corrosion/irritation

**Animal data** Dose: 0.5 g, 24 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Not irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Eye Irrit. 2 - H319 Causes serious eye irritation.

##### Skin sensitisation

**Skin sensitisation** Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** REACH dossier information. Chromosome aberration: Negative. Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

##### Carcinogenicity

**Carcinogenicity** NOAEL 542 mg/kg/day, Oral, Rat REACH dossier information. No evidence of carcinogenicity in animal studies.

##### Reproductive toxicity

**Reproductive toxicity - fertility** Two-generation study - NOAEL 300 mg/kg/day, Oral, Rat P REACH dossier information. No evidence of reproductive toxicity in animal studies.

**Reproductive toxicity - development** Developmental toxicity: - NOEL: 1000 mg/kg, Oral, Rat REACH dossier information. No evidence of reproductive toxicity in animal studies.

#### Tetrasodium 6,6'-((3,3'-dimethyl-(1,1'-biphenyl-4,4'-diyl)bis(azo))bis(4-amino-5-hydroxy-1,3-naphthalenedisulphonate)

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Acute Tox. 3 - H301 Toxic if swallowed. Converted acute toxicity point estimate (cATpE)

## Calcofluor White Reagent

ATE oral (mg/kg)	100.0
<u>Carcinogenicity</u>	
Carcinogenicity	Carc. 1B - H350 May cause cancer.

### SECTION 12: Ecological Information

#### 12.1. Toxicity

**Toxicity** Not considered toxic to fish.

#### Ecological information on ingredients.

##### 4,4'-bis[4-[bis(2-Hydroxyethyl)amino]-6-anilino-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonic acid

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: > 1000 mg/l, Brachydanio rerio (Zebra Fish) REACH dossier information.
<b>Acute toxicity - aquatic invertebrates</b>	NOEC, 48 hours: 100 mg/l, Daphnia magna EC <sub>50</sub> , 48 hours: > 100 mg/l, Daphnia magna REACH dossier information.
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata REACH dossier information.
<b>Acute toxicity - microorganisms</b>	IC <sub>50</sub> , 3 hours: > 100 mg/l, Activated sludge REACH dossier information.
<b>Acute toxicity - terrestrial</b>	LC <sub>0</sub> , 14 days: 1.37 mg/kg, Eisenia Fetida (Earthworm) LC <sub>50</sub> , 14 days: > 1000 mg/kg, Eisenia Fetida (Earthworm) NOEC, 14 days: 1.37 mg/kg, Eisenia Fetida (Earthworm) REACH dossier information.
<b>Chronic toxicity - aquatic invertebrates</b>	NOEC, 21 days: 1 mg/l, Daphnia magna LOEC, 21 days: 3.2 mg/l, Daphnia magna EC <sub>50</sub> , 21 days: 5.6 mg/l, Daphnia magna REACH dossier information.

#### 12.2. Persistence and degradability

**Persistence and degradability** No data available.

#### Ecological information on ingredients.

##### 4,4'-bis[4-[bis(2-Hydroxyethyl)amino]-6-anilino-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonic acid

<b>Phototransformation</b>	Air - DT <sub>50</sub> : 1.311 - 1.346 hours Calculation method. REACH dossier information.
<b>Stability (hydrolysis)</b>	pH4, pH7, pH9 - Half-life : > 1 year @ 25°C REACH dossier information.
<b>Biodegradation</b>	Water - Degradation (7%): 10 days Water - Degradation (8%): 15 days Water - Degradation (2%): 28 days REACH dossier information. No biodegradation observed under test conditions.

#### 12.3. Bioaccumulative potential

## Calcofluor White Reagent

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

### Ecological information on ingredients.

#### 4,4'-bis[4-[bis(2-Hydroxyethyl)amino]-6-anilino-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonic acid

**Partition coefficient** log Pow: -3.50 Calculation method. REACH dossier information.

### 12.4. Mobility in soil

**Mobility** The product is soluble in water.

### Ecological information on ingredients.

#### 4,4'-bis[4-[bis(2-Hydroxyethyl)amino]-6-anilino-1,3,5-triazin-2-yl]amino]stilbene-2,2'-disulphonic acid

**Adsorption/desorption coefficient** Soil - log Koc : 2.45 - 4 REACH dossier information.

**Henry's law constant** 0 Pa m<sup>3</sup>/mol @ 25°C Calculation method. REACH dossier information.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** Not determined.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Dispose of waste product or used containers in accordance with local regulations

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.



## Calcofluor White Reagent

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### SECTION 15: Regulatory information

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

<b>National regulations</b>	EH40/2005 Workplace exposure limits. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
<b>EU legislation</b>	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

<b>Classification procedures according to Regulation (EC) 1272/2008</b>	Carc. 1B - H350: Calculation method.
<b>Revision comments</b>	Classification according to EC 1272/2008 (CLP).
<b>Revision date</b>	09/04/2015
<b>Revision</b>	3
<b>Supersedes date</b>	01/11/2012
<b>SDS number</b>	775
<b>Risk phrases in full</b>	R25 Toxic if swallowed. R36 Irritating to eyes. R45 May cause cancer.
<b>Hazard statements in full</b>	H301 Toxic if swallowed. H319 Causes serious eye irritation. H350 May cause cancer.

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostics control, it is the users responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.