

Material Safety Data Sheet

Printing date 08/01/2011

Reviewed on 09/09/2010

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

- **Product identifier**
- **Trade name:** SYPRO Ruby IEF Protein Gel Stain
- **Catalog or product number:** 1703148, 1703148EDU
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Bio-Rad Laboratories, Life Science Group
 2000 Alfred Nobel Drive
 Hercules, California 94547 (510)741-1000
- **Information department:** Technical services, customer support.
- **Emergency telephone number:**
 1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.
 510-741-1000

2 Composition/information on ingredients

· **Description:** Mixture of the substances listed below with non-hazardous additions.


· **Listing of dangerous and non-hazardous components:**

7732-18-5	water		50-100%
	Proprietary ingredient C, organic liquid		20-35%
76-03-9	trichloroacetic acid	C R35 N R50/53	10-20%


· **Additional information** For the wording of the listed risk phrases refer to section 15.

3 Hazards identification


- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 Corrosive.
 May cause irreversible eye damage.
 Irritant to respiratory system.
 Irritant to respiratory system and skin.

 C; Corrosive

R35: Causes severe burns.

 Xi; Irritant

R37: Irritating to respiratory system.

 N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**
 The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

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· **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.

· **Label elements**· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**

C Corrosive

N Dangerous for the environment

· **Hazard-determining components of labelling:**

trichloroacetic acid

· **Risk phrases:**

35 Causes severe burns.

37 Irritating to respiratory system.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· **Safety phrases:**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately.

57 Use appropriate container to avoid environmental contamination.

60 This material and its container must be disposed of as hazardous waste.

· **Emergency overview:**· **Routes of exposure:** Inhalation* **4 First aid measures**

· **General information** Immediately remove any clothing soiled by the product.

· **After inhalation** In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

* **5 Firefighting measures**

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Protective equipment:** Wear self-contained respiratory protective device.

* **6 Accidental release measures**

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment (See section 8). Keep unprotected persons away.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
No special measures required.
No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

Components with limit values that require monitoring at the workplace:

76-03-9 trichloroacetic acid

REL	7 mg/m ³ , 1 ppm
TLV	6.7 mg/m ³ , 1 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:** Protective gloves.
- **Material of gloves** Synthetic gloves
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Safety glasses

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Tightly sealed goggles.

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9 Physical and chemical properties

· General Information

· Appearance:

Form: Liquid
Color: Colorless
Odor: Acidic

· pH-value at 20°C: < 1

· Change in condition

Melting point/Melting range: undetermined
Boiling point/Boiling range: 100°C

· Flash point: > 100°C

· Ignition temperature: 371°C

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower: 2.6 Vol %
Upper: 12.6 Vol %

· Vapor pressure at 20°C: 23 hPa

· Density: Not determined

· Solubility in / Miscibility with

Water: Fully miscible

· Solvent content:

Organic solvents: 25.1 %
Water: 62.3 %

Solids content: 12.6 %

· Other information: No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**
Strong caustic effect on skin and mucous membranes.

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Irritant to skin and mucous membranes.· **on the eye:***Strong caustic effect.**Irritant effect.*· **Sensitization:** *No sensitizing effects known.*· **Additional toxicological information:***The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:**The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:**Corrosive**Irritant**Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.*· **Target organs:** *Skin.***12 Ecological information**· **Aquatic toxicity:** *No further relevant information available.*· **Persistence and degradability** *No further relevant information available.*· **Behavior in environmental systems:**· **Bioaccumulative potential** *No further relevant information available.*· **Ecotoxicological effects:**· **Remark:** *Toxic for fish*· **Additional ecological information:**· **General notes:***Water hazard class 2 (Self-assessment): hazardous for water.**Do not allow product to reach ground water, water course or sewage system.**Must not reach bodies of water or drainage ditch undiluted or unneutralized.**Danger to drinking water if even small quantities leak into the ground.**Also poisonous for fish and plankton in water bodies.**Toxic for aquatic organisms**Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.***13 Disposal considerations**· **Waste treatment methods**· **Recommendation***Must not be disposed of together with household garbage. Do not allow product to reach sewage system.**Hand over to hazardous waste disposers.*· **Uncleaned packagings:**· **Recommendation:** *Disposal must be made according to official regulations.*

USA

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14 Transport information

· UN-Number	
· DOT	UN2564
· ADR, IMDG, IATA	2564
· UN proper shipping name	
· DOT, IMDG, IATA	TRICHLOROACETIC ACID SOLUTION
· ADR	2564 TRICHLOROACETIC ACID SOLUTION
· Transport hazard class(es)	
· DOT, IMDG, IATA	
· Class	8 Corrosive substances.
· Label	8
· ADR	
· Class	8 Corrosive substances
· Label	8
· Packing group	
· DOT, ADR, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

15 Regulatory information

· SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)

· Section 302/304 (40CFR355.30 / 40CFR355.40):

None of the ingredients is listed.

· Section 313 (40CFR372.65):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

7732-18-5 water

76-03-9 trichloroacetic acid

· Carcinogenic categories

· EPA (Environmental Protection Agency)

76-03-9 trichloroacetic acid

C

· IARC (International Agency for Research on Cancer)

76-03-9 trichloroacetic acid

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· NTP (National Toxicology Program)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

76-03-9 trichloroacetic acid

A3

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Markings according to EU guidelines:

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· Code letter and hazard designation of product:

C Corrosive

N Dangerous for the environment

· Hazard-determining components of labelling:

trichloroacetic acid

· Risk phrases:

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· National regulations

· Technical instructions (air):

Class	Share in %
III	20-35

· Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing MSDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· * Data compared to the previous version altered.