

Product code

Description

12002353

Photosynthesis and Cellular Respiration Kit for General Biology  
Photosynthesis and Cellular Respiration Kit for AP Biology

12002352

17001238

12002358EDU

12002357EDU

12005534

12005534EDU

Components:

10049297

10049296

10049292

Debeading Solution

10x CO<sub>2</sub> Indicator

Algae Beads



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 09/20/2017

Reviewed on 09/20/2017

**1 Identification**

Product identifier

Trade name: Debeading Solution

Catalog or product number: 10049297, 10049299

Application of the substance / the mixture: 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

Information department: [lsq\\_techserv\\_us@bio-rad.com](mailto:lsq_techserv_us@bio-rad.com)

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

(510)741-1000

**2 Hazard(s) identification**

Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

Label elements

GHS label elements: Void

Hazard pictograms: Void

Signal word: Void

Hazard statements: Void

Additional information: Contact with acids may cause release of toxic gases

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

**3 Composition information on ingredients**

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with non-hazardous diluents.

Listing of dangerous and non-hazardous components:

6132-04-3 Citric acid; monodium salt dihydrate

Eye Irrit. 2A, H319, STOT SE 3, H335

6381-32-6 Ethylenediaminetetraacetic acid disodium salt dihydrate

Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335

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

1-2.5%

1-2.5%

**4 First aid measures**

Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

Printing date 09/20/2017

Reviewed on 09/20/2017

Trade name: Debeading Solution

(Cont'd. of page 1)

- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Induce vomiting and call for medical help.
- Information for odor:
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

**5 Fire-fighting measures**

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

**6 Accidental release measures**

- Personal precautions, protective equipment and emergency procedures: Wear protective clothing.
- Environmental precautions:
- Do not allow to enter sewers, surface or ground water.
- Dilute with plenty of water.
- Methods and material for containment and cleaning up:
- Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sands).
- Reference to other sections:
- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment
- Protective Action Criteria for Chemicals

PAC-1:	30 mg/m <sup>3</sup>
6361-92-6: Ethylenediaminetetraacetic acid disodium salt dihydrate	
PAC-2:	
6361-92-6: Ethylenediaminetetraacetic acid disodium salt dihydrate	330 mg/m <sup>3</sup>
PAC-3:	
6381-92-6: Ethylenediaminetetraacetic acid disodium salt dihydrate	2,000 mg/m <sup>3</sup>

**7 Handling and storage**

- Handling
- Precautions for safe handling: No special precautions are necessary if used correctly.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- 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: None

(Cont'd. on page 3)

Printing date 09/20/2017

Reviewed on 09/20/2017

Trade name: Debeading Solution

(Cont'd. of page 2)

- 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.
- Control parameters
- Components with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment
- General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Not required.
- 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

**9 Physical and chemical properties**

- Information on basic physical and chemical properties
- General Information
- Appearance:
- Form: Liquid
- Color: Colorless
- Odor: Odorless
- Odor threshold:
- pH-value at 20 °C: 7
- Change in condition
- Melting point/Softening range: undetermined
- Boiling point/Boling range: 100 °C
- Flash point: Not applicable
- Flammability (solid, gaseous): Not applicable
- Ignition temperature:
- Decomposition temperature: Not determined.
- Auto-igniting: Product is not self-igniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
- Lower: Not determined.
- Upper: Not determined.

(Cont'd. on page 4)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 09/20/2017

Reviewed on 09/20/2017

Trade name: **Debearding Solution**

Vapor pressure at 20 °C:	23 hPa	(Contd. of page 3)
Density:	Not determined	
Relative density	Not determined	
Vapor density	Not determined	
Evaporation rate	Not determined	
Solubility in:	Miscibility with	
Water:	Fully miscible	
Partition coefficient (n-octanol/water):	Not determined.	
Viscosity:		
dynamic:	Not determined	
kinematic:	Not determined	
Solvent content:	96.5 %	
Solids content:	3.5 %	
Other information	No further relevant information available.	

**10 Stability and reactivity**

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

**11 Toxicological information**

- Information on toxicological effects
- Acute toxicity:
- Primary irritant effect: on the skin: No irritant effect.
- on the eye: No irritant effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
- The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
- When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- Carcinogenic categories
- IARC (International Agency for Research on Cancer)
- None of the ingredients is listed.

(Contd. on page 5)



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 09/20/2017

Reviewed on 09/20/2017

Trade name: **Debearding Solution**

NTP (National Toxicology Program)	(Contd. of page 4)
None of the ingredients is listed.	
OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	
Target organs:	Not applicable.

**12 Ecological information**

- Toxicity
- 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.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
- Water hazard class 1 (GHS07 Regulation) (Self-assessment): slightly hazardous for water.
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

**13 Disposal considerations**

- Waste treatment methods
- Recommendation: Dispose of waste in accordance to applicable national, regional, or local regulations.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

**14 Transport information**

UN-Number	DOT, ADR, ADN, IMDG, IATA	Void
UN proper shipping name	DOT, ADR, ADN, IMDG, IATA	Void
Transport hazard class(es)	DOT, ADR, ADN, IMDG, IATA	Void
Class	DOT, ADR, ADN, IMDG, IATA	Void
Packing group	DOT, ADR, IMDG, IATA	Void

(Contd. on page 6)

Printing date 09/20/2017

Reviewed on 09/20/2017

Trade name: Debedding Solution

(Cont'd. of page 5)

- Environmental hazards: No
- Marine pollutant: Not applicable
- Special precautions for user: Not applicable
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable
- UN "Model Regulation": Void

**15. Regulatory Information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)
  - Section 302.304 (40CFR355.30 / 40CFR355.40): None of the ingredients is listed
  - Section 313 (40CFR312.63): None of the ingredients is listed
- TSCA (Toxic Substances Control Act):
  - 7617-14-5 sodium chloride
  - 7732-18-5 water
- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    - None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    - None of the ingredients is listed
  - 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
- National regulations
  - Water hazard class: Water hazard class 1 (Self-assessment); slightly hazardous for water
  - Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**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 SDS: Environmental Health and Safety
- Contact: Life Science Group: Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547; (1510) 741-1000
- Diagnosik Group: Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547; (1510) 724-7000

(Cont'd. on page 7)

Printing date 09/20/2017

Reviewed on 09/20/2017

Trade name: Debedding Solution

(Cont'd. of page 6)

- Date of preparation / last revision 09/20/2017 / -
- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IECIS: International Maritime Code for Dangerous Goods
  - DGT: US Department of Transportation
  - ATA: International Air Transport Association
  - ATA: American National Conference of Experimental Industrial Hygienists
  - FAOCS: European Committee of Existing Commercial Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - PEP: Persistent, Bioaccumulative and Toxic
  - UPB: very Persistent and very Bioaccumulative
  - MUSL: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - REL: Recommended Exposure Limit
  - Acute Tox. 4: Acute toxicity - Category 4
  - Skin Irrit. 2: Skin corrosion/irritation - Category 2
  - Eye Irrit. 2A: Serious eye damage eye irritation - Category 2A
  - STOT-Seq 3: Specific target organ toxicity (single exposure) - Category 3
- \* Data computed to the previous version altered.