1 Identification

- Product identifier
  - Trade name: Plasmid (pGLO™) lyophilized
  - Catalog or product number: 1660405, 1660405EDU, 9703031
  - CAS Number: 100209-25-4
  - 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
    (510)741-1000
  - Information department: lsg_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

2 Hazard(s) identification

- Classification of the substance or mixture
  The substance 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
  - Other hazards: Void

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
  - CAS No. Description: 100209-25-4 Plasmid DNA, Col E1
  - Additional information: For the wording of the listed risk phrases refer to section 15.

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.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water.
  - After swallowing: Rinse mouth with water. Seek medical attention and appropriate follow-up.

(Contd. on page 2)
46.1.13 · Information for doctor
  · 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: No special measures required.
  · Methods and material for containment and cleaning up: Pick up mechanically.

· Reference to other sections
  No dangerous substances are released.
  See Section 7 for information on safe handling
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

  · PAC-1: Substance is not listed.

  · PAC-2: Substance is not listed.

  · PAC-3: Substance is not listed.

7 Handling and storage

· Handling
  · Precautions for safe handling No special measures required.
  · 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.
  · 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.
Trade name: Plasmid (pGLO™) lyophilized

- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- 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.
  - 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: Solid
    - Color: Colorless
    - Odor: Odorless
    - Odor threshold: Not determined.
  - pH-value: Not applicable.

- Change in condition
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: undetermined

- Flash point: Not applicable
- Flammability (solid, gaseous): Product is not flammable.
- Decomposition temperature: Not determined.
- Auto igniting: Not determined.
- Danger of explosion: Product does not present an explosion hazard.

- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.

- Vapor pressure: Not applicable.
- Density:
  - Relative density: Not determined.
  - Vapor density: Not applicable.
  - Evaporation rate: Not applicable.

- Solubility in / Miscibility with
  - Water: Fully miscible

- Partition coefficient (n-octanol/water): Not determined.
Trade name: Plasmid (pGLO™) lyophilized

- Viscosity:
  - dynamic: Not applicable.
  - kinematic: Not applicable.
- Solids content: 100.0 %
- 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:
    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.
    The substance is not subject to classification according to the latest version of the EU lists.
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    Substance is not listed.
  - NTP (National Toxicology Program)
    Substance is not listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    Substance is not 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.
Trade name: Plasmid (pGLO™) lyophilized

- Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes: Generally not hazardous for water.
- 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: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. 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
- Packing group
  - DOT, ADR, IMDG, IATA: Void
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user
  - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
- Transport/Additional information:
  - UN "Model Regulation": Void

(Contd. of page 6)
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):
    Substance not listed.
  - Section 313 (40CFR372.65):
    Substance is not listed.
- TSCA (Toxic Substances Control Act):
  Substance is not listed.
- California Proposition 65:
  Substance is not listed.
- Chemicals known to cause cancer:
  Substance is not listed.
- Developmental Toxicity
  Substance is not listed.
- Carcinogenic categories
- EPA (Environmental Protection Agency)
  Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH)
  Substance is not listed.
- MAK (German Maximum Workplace Concentration)
  Substance is not listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health)
  Substance is not listed.
- National regulations
  - Water hazard class: Generally not 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: 1(510) 741-1000
  Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000
- Date of preparation / last revision 05/18/2018 / -
- 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)
  IMDG: International Maritime Code for Dangerous Goods

Trade name: Plasmid (pGLO™) lyophilized
Trade name: Plasmid (pGLO™) lyophilized

DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit

* Data compared to the previous version altered.