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

1.1 Product identifier
   Trade name: Blue Liquid in ASTM Precision Thermometers
   CAS number: 108-32-7
   EC number: 203-572-1

1.2 Relevant identified uses of the substance or mixture and uses advised against
   No further relevant information available.

   Application of the substance / the mixture: Laboratory chemicals

1.3 Details of the supplier of the Safety Data Sheet
   Manufacturer/Supplier:
   SP Industries, Inc.
   102 West Seventh Avenue
   Trappe, PA 19426
   (610) 489-5500

1.4 Emergency telephone number:
   ChemTel Inc.
   +1 (800)255-3924, +1 (813)248-0585

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008
   Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).
   Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements
   Labelling according to Regulation (EC) No 1272/2008
   The product is classified and labelled according to the Globally Harmonized System within the United States.
   The substance is classified and labelled according to the CLP regulation.

   Hazard pictograms
   GHS07

   Signal word Warning

   Hazard-determining components of labelling:
   propylene carbonate

   Hazard statements
   H319 Causes serious eye irritation.

   Precautionary statements
   P264 Wash thoroughly after handling.
Trade name: Blue Liquid in ASTM Precision Thermometers

P280 Wear protective gloves / eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards
There are no other hazards not otherwise classified that have been identified.

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Substances
CAS No. Description
108-32-7 propylene carbonate
Identification number(s)
EC number: 203-572-1
Index number: 607-194-00-1

SECTION 4: First aid measures

4.1 Description of first aid measures
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately wash with water and soap and rinse thoroughly. If skin irritation is experienced, consult a doctor.
After eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed
Headache
Irritant to eyes.
Gastric or intestinal disorders when ingested.
Nausea in case of ingestion.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
The product is not flammable.
Trade name: Blue Liquid in ASTM Precision Thermometers

Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

6.2 Environmental precautions Avoid release to the environment.

6.3 Methods and material for containment and cleaning up
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients 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.

(Cont'd. from page 2)

(Cont'd. on page 4)
Trade name: Blue Liquid in ASTM Precision Thermometers

- DNELs: No further relevant information available.
- PNECs: No further relevant information available.

8.2 Exposure controls
- General protective and hygienic measures:
  The usual precautionary measures are to be adhered to when handling chemicals.
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Do not inhale gases / fumes / aerosols.
  Avoid contact with the eyes.
  Avoid close or long term contact with the skin.
- Respiratory protection:
  Not required under normal conditions of use.
  Use suitable respiratory protective device when aerosol or mist is formed.
  For spills, respiratory protection may be advisable.
- Protection of hands:
  Wear protective gloves to handle contents of damaged or leaking units.
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Eye protection:
  Safety glasses
- Body protection:
  Not required under normal conditions of use.
  Protection may be required for spills.
- Limitation and supervision of exposure into the environment:
  No further relevant information available.
- Risk management measures: No special requirements.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
- Appearance
  Form: Fluid
  Colour: Colourless
  Odour: Fruit-like
  Odour threshold: Not determined.
- pH-value: ~7
- Melting point/Melting range: -55 °C (-67 °F)
- Boiling point/Boiling range: 240 °C (464 °F)
- Flash point: 132 °C (270 °F)
- Flammability (solid, gaseous): Not applicable.
Trade name: Blue Liquid in ASTM Precision Thermometers

(Cont'd. from page 4)

· Auto/Self-ignition temperature: Not determined.
· Decomposition temperature: Not determined.
· Self-igniting: Not determined.
· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits
  Lower: Not determined.
  Upper: Not determined.
· Oxidising properties
  Not determined.

· Vapour pressure at 20 °C (68 °F): 0,17 hPa

· Density at 20 °C (68 °F): 1,189 g/cm³ (9,922 lbs/gal)
· Relative density: Not determined.
· Vapour density: Not determined.
· Evaporation rate: Not determined.

· Solubility in / Miscibility with water: Fully miscible.
· Partition coefficient (n-octanol/water): Not determined.

· Viscosity
  Dynamic at 20 °C (68 °F): 2,8 mPas
  Kinematic: Not determined.

· 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.
· 10.2 Chemical stability Stable under normal temperatures and pressures.
· Thermal decomposition / conditions to be avoided:
  No decomposition if used and stored according to specifications.
  To avoid thermal decomposition do not overheat.
· 10.3 Possibility of hazardous reactions
  Toxic fumes may be released if heated above the decomposition point.
  Reacts with strong oxidising agents.
  Reacts with strong acids and alkali.
· 10.4 Conditions to avoid Excessive heat.
· 10.5 Incompatible materials Oxidizers, strong bases, strong acids
· 10.6 Hazardous decomposition products Carbon monoxide and carbon dioxide

(Cont'd. on page 6)
SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>LD/LC50 values relevant for classification:</th>
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<tbody>
<tr>
<td>108-32-7 propylene carbonate</td>
</tr>
<tr>
<td>Oral LD50 29000 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50 &gt;2000 mg/kg (rabbit)</td>
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</tbody>
</table>

- Primary irritant effect
  - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation: Causes serious eye irritation.
  - Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

- 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.

- Probable routes of exposure:
  - Ingestion.
  - Inhalation.
  - Eye contact.
  - Skin contact.

- Repeated dose toxicity: No further relevant information available.
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity
- Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability
- Easily biodegradable

12.3 Bioaccumulative potential
- No further relevant information available.

12.4 Mobility in soil
- No further relevant information available.
Trade name: Blue Liquid in ASTM Precision Thermometers

- Additional ecological information:
- General notes:
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation
  Small amounts may be diluted with plenty of water and washed away. Dispose of larger amounts in accordance with Local Authority requirements.
  The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- 14.1 UN-Number
  - DOT, ADR, IMDG, IATA Not Regulated
- 14.2 UN proper shipping name
  - DOT, ADR, IMDG, IATA Not Regulated
- 14.3 Transport hazard class(es)
  - DOT, ADR, IMDG, IATA
  - Class Not Regulated
- 14.4 Packing group
  - DOT, ADR, IMDG, IATA Not Regulated
- 14.5 Environmental hazards:
  - Marine pollutant: No
- 14.6 Special precautions for user Not applicable.
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS


<table>
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<tr>
<th>Trade name: Blue Liquid in ASTM Precision Thermometers</th>
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(Cont’d. from page 7)

- 14.7 Transport in bulk according to Annex II
  of Marpol and the IBC Code
  Not applicable.

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - United States (USA)
    - SARA
      - Section 355 (extremely hazardous substances):
        - Substance is not listed.
      - Section 313 (Specific toxic chemical listings):
        - Substance is not listed.
      - TSCA (Toxic Substances Control Act):
        - Substance is listed.
    - Proposition 65 (California):
      - Chemicals known to cause cancer:
        - Substance is not listed.
      - Chemicals known to cause reproductive toxicity for females:
        - Substance is not listed.
      - Chemicals known to cause reproductive toxicity for males:
        - Substance is not listed.
      - Chemicals known to cause developmental toxicity:
        - Substance is not listed.
    - Carcinogenic Categories
      - EPA (Environmental Protection Agency)
        - Substance is not listed.
      - IARC (International Agency for Research on Cancer)
        - Substance is not listed.
      - NIOSH-Ca (National Institute for Occupational Safety and Health)
        - Substance is not listed.
    - Canada
      - Canadian Domestic Substances List (DSL)
        - Substance is listed.
      - Canadian Ingredient Disclosure list (limit 0,1%)
        - Substance is not listed.
      - Canadian Ingredient Disclosure list (limit 1%)
        - Substance is listed.

(Cont’d. on page 9)
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS


Trade name: Blue Liquid in ASTM Precision Thermometers

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- Other regulations, limitations and prohibitive regulations
  - Substances of very high concern (SVHC) according to REACH, Article 57
    Substance is not listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

Abbreviations and acronyms:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Sources
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Safety Data Sheets, Individual Manufacturers

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