Material Safety Data Sheet

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
ColorSeed™

PRODUCT USE
Precise quality control sample for Cryptosporidium and Giardia analysis.

SUPPLIER
Company: BTF - a Biomerieux Company
Address:
Unit 1, 35 - 41 Waterloo Rd
North Ryde BC
NSW, 2113
AUSTRALIA
Telephone: +61 2 8877 9150
Fax: +61 2 8877 9101
Email: info@btbio.com

DISTRIBUTOR
TCS Biosciences Ltd
Botolph Claydon, Buckingham,
MK18 2LR, United Kingdom
t: +44 (0) 1296 711205,
f: +44 (0) 1296 714806,
e: sales@tcsgroup.co.uk, i:
www.tcsbiosciences.co.uk

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

POISONS SCHEDULE
None

RISK
None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>10⁷ to 10⁸ gamma- inactivated (nonviable), stained Giardia lamblia cysts</td>
<td>NotSpec</td>
<td></td>
</tr>
<tr>
<td>10⁷ to 10⁸ gamma- inactivated (nonviable) stained, Cryptosporidium parvum oocysts</td>
<td>NotSpec</td>
<td></td>
</tr>
<tr>
<td>ingredients proprietary non hazardous, including buffer and water</td>
<td>NotSpec</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7732-18-5</td>
<td>NotSpec</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.
EYE
- If this product comes in contact with eyes:
  - Wash out immediately with water.
  - If irritation continues, seek medical attention.
  - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
- If skin or hair contact occurs:
  - Flush skin and hair with running water (and soap if available).
  - Seek medical attention in event of irritation.

INHALED
- Not applicable.

NOTES TO PHYSICIAN
- Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD
- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.
Decomposes on heating and produces toxic fumes of: carbon dioxide (CO2).

FIRE INCOMPATIBILITY
- None known.

HAZCHEM
None

PERSONAL PROTECTION
Glasses: PVC chemical resistant type.
Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

■ - Clean up all spills immediately.
  - Avoid breathing vapours and contact with skin and eyes.
  - Control personal contact by using protective equipment.
  - Contain and absorb spill with sand, earth, inert material or vermiculite.
  - Wipe up.
  - Place in a suitable, labelled container for waste disposal.

MAJOR SPILLS

■ Not applicable.
Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

■ - Limit all unnecessary personal contact.
  - Wear protective clothing when risk of exposure occurs.
  - Use in a well-ventilated area.
  - When handling DO NOT eat, drink or smoke.
  - Always wash hands with soap and water after handling.
  - Avoid physical damage to containers.
  - Use good occupational work practice.
  - Observe manufacturer's storing and handling recommendations.

SUITABLE CONTAINER
Container capacity approx. 2mls.

STORAGE INCOMPATIBILITY
■ None known.

STORAGE REQUIREMENTS
■ - Keep dry.
  - Store under cover.
  - Protect containers against physical damage.
  - Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

None assigned.

PERSONAL PROTECTION

EYE

■ - Safety glasses with side shields.

HANDS/FEET

■ - Wear chemical protective gloves, eg. PVC.
  - Wear safety footwear or safety gumboots, eg. Rubber.

OTHER

■ - Overalls/Laboratory coat.
  - Eyewash unit.
ENGINEERING CONTROLS

- General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear, colourless, odourless liquid; mixes with water.

PHYSICAL PROPERTIES

Liquid.

Mixes with water.

<table>
<thead>
<tr>
<th>State</th>
<th>Liquid</th>
<th>Molecular Weight</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Range (°C)</td>
<td>Not Available</td>
<td>Viscosity</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Range (°C)</td>
<td>Not Available</td>
<td>Solubility in water (g/L)</td>
<td>Miscible</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>Not Applicable</td>
<td>pH (1% solution)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition Temp (°C)</td>
<td>Not Available</td>
<td>pH (as supplied)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Autoignition Temp (°C)</td>
<td>Not Available</td>
<td>Vapour Pressure (kPa)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Upper Explosive Limit (%)</td>
<td>Not Applicable</td>
<td>Specific Gravity (water=1)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
<td>Not Applicable</td>
<td>Relative Vapour Density (air=1)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Volatile Component (%vol)</td>
<td>Not Available</td>
<td>Evaporation Rate</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Product is considered stable and hazardous polymerisation will not occur. For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

EYE

- Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
SKIN
- The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

INHALED
- Not normally a hazard due to non-volatile nature of product.

CHRONIC HEALTH EFFECTS
- Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

TOXICITY AND IRRITATION
- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

Not available.

Section 12 - ECOLOGICAL INFORMATION
- DO NOT discharge into sewer or waterways.
  Ecotoxicity water
  LOW       LOW       HIGH

Section 13 - DISPOSAL CONSIDERATIONS
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION
HAZCHEM:

None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION
POISONS SCHEDULE
None

REGULATIONS
Regulations for ingredients

water (CAS: 7732-18-5) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS),"GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships,"IMO IBC Code Chapter 18: List of products to which the Code does not apply","OECD Representative List of High Production Volume (HPV) Chemicals"

No data for ColorSeed™
Section 16 - OTHER INFORMATION

- Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review using available literature references.
- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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This is the end of the MSDS.