Safety Data Sheet
Fluorescein Glu-Gly-Arg-chloromethylketone

SECTION 1: Identification

1.1 Product identifier

Product name
Fluorescein Glu-Gly-Arg-chloromethylketone

Product number
BFRGCK-01

1.2 Other means of identification

Fluorescein GGACK

1.3 Recommended use of the chemical and restrictions on use

Laboratory chemicals

1.4 Supplier’s details

Name
Haematologic Technologies, Inc.

Address
57 River Road
Essex Junction, VT 05452
USA

Telephone
+1 (802) 878-1777

Fax
+1 (802) 878-1776

email
hti@haemtech.com

1.5 Emergency phone number(s)

+1 (802) 878-1777 Hours of operation: M-F 08:00-16:30 EST

+1 (800) 424-9300 (CHEMTREC®) during non-company hours

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

- Sensitization, respiratory (chapter 3.4), Cat. 1
- Sensitization, skin (chapter 3.4), Cat. 1

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word
Danger

Hazard statement(s)
H317
May cause an allergic skin reaction
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H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P302+P352 IF ON SKIN: Wash with plenty of water/...
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P321 Specific treatment (see … on this label).
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container to …

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Formula: C14H25Cln6O5
Other names / synonyms: GGACK

Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glu-Gly-Arg chloromethylketone</td>
<td>0.1 - 2 % (Weight)</td>
</tr>
<tr>
<td>Hydrochloric acid (&gt;=37%) (CAS no.: 7647-01-0; EC no.: 231-595-7; Index no.: 017-002-01-X)</td>
<td>0.1 % (Volume)</td>
</tr>
<tr>
<td>Fluorescein isothiocyanate isomer I (CAS no.: 3326-32-7)</td>
<td>0.1 % (Weight)</td>
</tr>
</tbody>
</table>

CLASSIFICATIONS: No data available. HAZARDS: No data available.
CLASSIFICATIONS: Skin corrosion/irritation (chapter 3.2), Cat. 1B; Specific target organ toxicity, single exposure (chapter 3.8), Cat. 3; Corrosive to metals (chapter 2.16), Cat. 1. HAZARDS: H314 - Causes severe skin burns and eye damage; H318 - Causes serious eye damage; H335 - May cause respiratory irritation.
CLASSIFICATIONS: Sensitization, respiratory (chapter 3.4), Cat. 1; Sensitization, skin (chapter 3.4), Cat. 1. HAZARDS: H317 - May cause an allergic skin reaction; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact Rinse with plenty of water. Get medical attention if irritation develops and persists. Get medical attention.

In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur. Get medical attention.

If swallowed DO NOT induce vomiting unless instructed to do so by medical professionals. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Personal protective equipment for first-aid responders No data available.

4.2 Most important symptoms/effects, acute and delayed

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4.3 Indication of immediate medical attention and special treatment needed, if necessary
   No data available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
   Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical
   No data available.

5.3 Special protective actions for fire-fighters
   Wear self-contained breathing apparatus for firefighting if necessary.
   Further information
   No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
   Chemical safety goggles, protective clothing and shoes, protective rubber gloves

6.2 Environmental precautions
   No special measures required.

6.3 Methods and materials for containment and cleaning up
   Pick up mechanically placing in a waste disposal container.
   Reference to other sections
   No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
   Prevent formation of dust. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from heat, and sources of ignition. Evaporate residue under a fume hood.

7.2 Conditions for safe storage, including any incompatibilities
   Keep container tightly closed in a dry, -70°C space.
   Specific end use(s)
   No data available.

SECTION 8: Exposure controls/personal protection

8.2 Appropriate engineering controls
   Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

8.3 Individual protection measures, such as personal protective equipment (PPE)
   Pictograms
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Thermal hazards
No data available.

Environmental exposure controls
No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/form</td>
<td>Frozen liquid, may be tinted yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Nearly odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data</td>
</tr>
<tr>
<td>pH</td>
<td>No data</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper/lower flammability limits</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No data</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data</td>
</tr>
</tbody>
</table>

Other safety information
No data available.
SECTION 10: Stability and reactivity

10.1 Reactivity
No data available.

10.2 Chemical stability
No data available.

10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No data available.

10.5 Incompatible materials
No data available.

10.6 Hazardous decomposition products
These products are carbon oxides (CO, CO₂), halogenated compounds, hydrogen chloride.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
No data available.

Skin corrosion/irritation
No data available.

Serious eye damage/irritation
No data available.

Respiratory or skin sensitization
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Summary of evaluation of the CMR properties
No data available.

STOT-single exposure
No data available.

STOT-repeated exposure
No data available.

Aspiration hazard
SECTION 12: Ecological information

Toxicity
Hydrochloric acid (>=37%)
LC50 - Mosquito fish - 282 mg/l - 96 h

Persistence and degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
No data available.

Other adverse effects
No data available.

SECTION 13: Disposal considerations

Disposal of the product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Disposal of contaminated packaging
Dispose of as unused product.

Waste treatment
No data available.

Sewage disposal
No data available.

Other disposal recommendations
Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards
The following components are subject to reporting levels established by SARA Title III, Section 313: CAS-no. 7647-01-0

SARA 313 Components
Acute Health Hazard

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts Right To Know Components
Chemical name: Hydrochloric acid
CAS number: 7647-01-0

New Jersey Right To Know Components
Common name: HYDROGEN CHLORIDE
CAS number: 7647-01-0

Pennsylvania Right To Know Components
Chemical name: Hydrochloric acid
CAS number: 7647-01-0

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components
2-(6-Hydroxy-3-oxo-(3H)-xanthen-9-yl)-5-isothiocyanatobenzoic acid; CAS: 3326-32-7

New Jersey Right To Know Components
2-(6-Hydroxy-3-oxo-(3H)-xanthen-9-yl)-5-isothiocyanatobenzoic acid; CAS: 3326-32-7

15.2 Chemical Safety Assessment
A chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Further information/disclaimer
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