GF Healthcare

SAFETY DATA SHEET

Section 1. Identification

Product name ECL Plex™ Goat anti Rabbit Cy™2 Conjugate,

150 µg

Catalogue Number 28901110

Other means of identification Not available. Product type Solid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Use in laboratories

Industrial applications: Analytical reagent. Research.

GE Healthcare UK Ltd GE Healthcare Bio-Sciences Supplier Amersham Place 800 Centennial Avenue

Little Chalfont P.O. Box 1327 Piscataway, NJ 08855-1327

Buckinghamshire HP7 9NA

England

+44 0870 606 1921

ChemTrec US (available 24/7) 1-800-424-9300 In case of emergency

Section 2. Hazards identification

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or

mixture

AQUATIC HAZARD (LONG-TERM) - Category 3

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 16.5%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 16.

+ 1 800 526 3593

GHS label elements

Signal word No signal word.

Hazard statements Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention Avoid release to the environment.

Response Not applicable. Storage Not applicable.

Dispose of contents and container in accordance with all local, regional, national and international Disposal

regulations

Hazards not otherwise classified None known

Section 3. Composition/information on ingredients

Substance/mixture Mixture Other means of identification Not available.

CAS number/other identifiers

CAS number Not applicable. Product code 28901110

Ingredient name CAS number % 0.484 26628-22-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.



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Validation date 1 April 2015

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for

and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if

irritation occurs.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if

breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar,

tie, belt or waistband.

Skin contact Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious,

attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight

clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Ingestion

Eye contactNo known significant effects or critical hazards.InhalationNo known significant effects or critical hazards.Skin contactNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contactNo specific data.InhalationNo specific data.Skin contactNo specific data.IngestionNo specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Specific treatments No specific treatment.

Protection of first-aidersNo action shall be taken involving any personal risk or without suitable training. It may be dangerous to

the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media None known

Specific hazards arising from the

chemical

This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermalDecomposition products may include the following materials:decomposition productsphosphorus oxides

phosphorus oxides halogenated compounds

metal oxide/oxides

Special protective actions for fire-

fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for

fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

(SCBA) with a full face-piece operated in positive pressure mode.



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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding

areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put

on appropriate personal protective equipment.

For emergency responders If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on

suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautionsAvoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil of Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste

container. Dispose of via a licensed waste disposal contractor.

Large spill Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water

courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency

contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes,

skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers

retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational

hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove

contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage,

including any incompatibilities

Store between the following temperatures: 2 to 4°C (35.6 to 39.2°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to

avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name sodium azide

Exposure limits

ACGIH (United States, 2000).

CEIL: 0.11 ppm

OSHA (United States, 1989). Absorbed through skin.

TWA: 0.1 ppm CEIL: 0.1 ppm

NIOSH (United States, 1994). Absorbed through skin.

TWA: 0.3 ppm CEIL: 0.1 ppm

ACGIH TLV (United States, 6/2013).

C: 0.29 mg/m³, (as Sodium azide) Form: as Sodium azide

ACGIH TLV (United States, 6/2013). Notes: as hydrazoic acid vapor C: 0.11 ppm, (as Hydrazoic acid vapor) Form: as Hydrazoic acid vapor NIOSH REL (United States, 10/2013). Absorbed through skin. Notes:

NAN3

CEIL: 0.3 mg/m³, (NAN3)

NIOSH REL (United States, 10/2013). Absorbed through skin. Notes: as HN3 $\,$

CEIL: 0.1 ppm, (as HN3)

OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.

Notes: as HN3

CEIL: 0.1 ppm, (as HN3)

OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.

Notes: as NaN3

CEIL: 0.3 mg/m³, (as NaN3)

Appropriate engineering controls Good general ventilation should be sufficient to control worker exposure to airborne contaminants.



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Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this

product

Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state Solid. [Lyophilized solid]

Color Yellow. Odor Not available. Odor threshold Not available. Not available. Melting point Not available. **Boiling point** Not available. Flash point Not applicable. **Burning time** Not available. **Burning rate** Not available. **Evaporation rate** Not available. Flammability (solid, gas) Not available. Lower and upper explosive Not available.

(flammable) limits

Vapor pressure

Relative density

Vapor density

Not available. Not available. Not available.

Solubility Easily soluble in the following materials: cold water and hot water.

Solubility in water Not available.

Partition coefficient: n-octanol/ Not available.

vater

 Auto-ignition temperature
 Not available.

 Decomposition temperature
 Not available.

 SADT
 Not available.

 Viscosity
 Not available.



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Section 10. Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoidNo specific data. **Incompatible materials**No specific data.

Hazardous decomposition Under normal conditions of storage and use, hazardous decomposition products should not be produced.

products

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of Routes of entry anticipated: Oral, Dermal, Inhalation.

exposure

Potential acute health effects

Eye contactNo known significant effects or critical hazards.InhalationNo known significant effects or critical hazards.Skin contactNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contactNo specific data.InhalationNo specific data.Skin contactNo specific data.IngestionNo specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available
Potential delayed effects Not available

Long term exposure

Potential immediate effectsNot available.Potential delayed effectsNot available.



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Potential chronic health effects

Not available.

GeneralNo known significant effects or critical hazards.CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

RouteOral

ATE value
6466.8 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name **Species** Exposure sodium azide Acute EC50 0.348 mg/l Fresh water Algae - Pseudokirchneriella subcapitata 96 hours Acute EC50 4.2 to 6.2 mg/l Fresh water Daphnia - Daphnia pulex - Larvae 48 hours Acute LC50 9000 µg/l Fresh water Crustaceans - Gammarus lacustris 48 hours Acute LC50 0.68 mg/l Fresh water Fish - Lepomis macrochirus 96 hours Chronic NOEC 5600 µg/l Marine water Algae - Macrocystis pyrifera 96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available

Mobility in soil

Soil/water partition coefficient (Koc) Not available

Other adverse effects No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Product is not regulated as dangerous goods for transport.

Section 15. Regulatory information

U.S. Federal regulations TSCA 8(a) CDR Exempt/Partial exemption: Not determined

 $\label{thm:continuous} \textbf{United States inventory (TSCA 8b)}\!: \mbox{Not determined}.$

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)Not listedClean Air Act Section 602 Class I SubstancesNot listedClean Air Act Section 602 Class II SubstancesNot listedDEA List I Chemicals (Precursor Chemicals)Not listedDEA List II Chemicals (Essential Chemicals)Not listed

SARA 302/304

Composition/information on ingredients

 Name
 %
 EHS (lbs)
 (gallons)
 (lbs)
 (gallons)

 sodium azide
 0.484
 Yes.
 500
 1000

SARA 304 RQ 206611.6 lbs / 93801.7 kg

SARA 311/312

Classification Not applicable.



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Composition/information on ingre	<u>edients</u>					
Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
sodium azide	0.484	No.	No.	Yes.	Yes.	No.

State regulations

MassachusettsNone of the components are listed.New YorkNone of the components are listed.New JerseyNone of the components are listed.PennsylvaniaNone of the components are listed.

International regulations

Canada inventory Not determined.

International lists Australia inventory (AICS): Not determined.

China inventory (IECSC): Not determined. Japan inventory: Not determined. Korea inventory: Not determined.

Malaysia Inventory (EHS Register): Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined.

Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals

Chemical Weapons Convention List Schedule II Chemicals

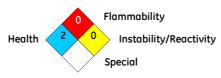
Chemical Weapons Convention List Schedule III Chemicals

Not listed

Not listed

Section 16. Other information

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of printing4/2/2015.Date of issue/Date of revision4/1/2015.Date of previous issue5/23/2011.Version4

Key to abbreviations ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by

the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

References Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should

be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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