



SAFETY DATA SHEET

Doc. ID: 472500-75 Rev. AG
Revised (year/month/day) 2015/05/12

Section 1 Identification of the Substance/mixture and of the Company/undertaking

1.1 Product Identifier

Product Name Glucose Reagent (Glucose Oxidase)
Part Number 472500
Series Name SYNCHRON Systems

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

Product Use For In Vitro Diagnostic Use. See product literature for details.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Beckman Coulter, Inc.
250 S. Kraemer Blvd
Brea, CA 92821, U.S.A.
Tel: 800-854-3633

EC REP Address

Beckman Coulter Eurocenter S.A.
22, rue Juste-Oliver, Case Postale 1044,
CH-1260 Nyon 1, Switzerland.
Telephone +41 (0)22 365 36 11
Monday through Friday, 9:00 am to
7:00pm)

e-mail address SDSNT@beckman.com

1.4 Emergency telephone number

Telephone number (24H) Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887

Distributor and Emergency Phone No.

Refer to attached list, Document ID: [472050](#), for local distributor and emergency phone numbers.

Section 2 Hazards Identification

2.1 Classification of substance or mixture

Product Description Mixture
Yellow to amber brown; Clear; Liquid; Alcohol odor

Classification according to EC 1272/2008 (CLP/GHS)

Flammable Liquids, Category 3
Respiratory Sensitization Category 1

Classification according to EC Directives 1999/45/EC and 67/548/EEC

Xn;R10-42

Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS

Flammable Liquids, Category 3
Respiratory Sensitization Category 1

Section 2 Hazards Identification (Continued)

2.2 Label Elements

According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS

Hazardous Ingredients

Ethyl Alcohol
Glucose Oxidase

Pictogram



Signal Word

DANGER

Hazard Statements

H226 Flammable liquid and vapour.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements

P210 Keep away from heat, hot surfaces, and sparks. No smoking.
P233 Keep container tightly closed.
P240 Ground container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharge.
P261 Avoid breathing vapours.
P280 Wear protective gloves, protective clothing and eye/face protection.
P284 In case of inadequate ventilation, wear respiratory protection.
P303+P361+P353 IF ON SKIN (or hair): Rinse skin with water.
P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P370+P378 In case of fire: Use water spray for extinction.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/national regulations
Product label will display most significant precautionary statements.

2.3 Other hazards

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

See Section 11 Toxicological Information for more detailed health information.

Section 3 Composition and Information on Ingredients

3.2 Mixtures

Hazardous Ingredients:		Hazard Classification of Pure Ingredients			
Chemical Name	% by wt.	EU-67/548/EEC	EU 1272/2008 CLP/GHS	GHS	

SAFETY DATA SHEET

Doc. ID: 472500-75 AG
Revised (year/month/day) 2015/05/12

Section 3 Composition and Information on Ingredients (Continued)

Glucose Oxidase CAS # 9001-37-0 EINECS # 232-601-0 Index # Not available	1 - 10	Xn;R20/22-42	Acute Tox. Inhal. 4 Acute Tox. Oral 4 Resp. Sens. 1 H302; H332; H334	Acute Tox. Inhal. 4 Acute Tox. Oral 4 Resp. Sens. 1 H302; H332; H334	
Ethyl Alcohol CAS # 64-17-5 EINECS # 200-578-6 Index # 603-002-00-5	1 - 10	F;R11	Flam. Liq. 2 H225	Flam. Liq. 2 H225	

See section 8 for available Occupational exposure limits

See Section 15 for additional regulatory information

See Section 16 for hazard class, hazard statements and risk phrase description

Section 4 First Aid Measures

4.1 Description of first aid measures

Inhalation	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.
Eye Contact	If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.
Skin Contact	In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.
Ingestion	If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May produce an allergic reaction in some people.
See Section 11 Toxicological Information for more detailed health information.

4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

Section 5 Fire Fighting Measures

Flammable Properties Flammable liquid and vapor.

5.1 Extinguishing Media Dry chemical, carbon dioxide or alcohol resistant foam. Use water spray to cool containers exposed to fire.

5.2 Special hazards arising from the substance or mixture

Special Fire and Explosion Hazards

Vapors form explosive mixtures with air above flash point. Vapors are heavier than air; fire may flash from ignition source back along vapor trail.

Hazardous Combustion Products

Oxides of carbon

Section 5 Fire Fighting Measures (Continued)

5.3 Advice for fire fighters

Protective Equipment

Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

5.4 Additional information

No further relevant information available.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

Observe general safety guidelines for protection; avoid eye and skin contact. Wear protective gloves, protective clothing and eye/face protection.

6.2 Environmental Precautions

Contain spill to prevent migration or evaporation.
Do not allow the undiluted product to enter sewers/surface or ground water.
Dispose of contents/container in accordance with local regulations

6.3 Methods and material for containment and cleaning up

Spill and Leak Procedures

Ventilate area. Remove all sources of ignition. Contain spill and collect with inert absorbent and place in a suitable container for disposal.
Dispose of all waste material in accordance with local guidelines.

6.4 Reference to other sections

Refer sections 8 and 13.

Section 7 Handling and Storage

7.1 Precautions for safe handling

Use good laboratory procedures; avoid eye and skin contact.
Avoid inhalation of vapor or mist.

7.2 Conditions for safe storage, including any incompatibilities

Store at 2 to 8°C , as directed on the product label.
To maintain product quality, store according to the instructions in the product labeling.
Store away from strong acids, strong bases, strong oxidizers and incompatible materials (section 10).

7.3 Specific end uses

No further relevant information available.

Section 8 Exposure Controls and Personal Protection

8.1 Control parameters

Exposure Limits

US OSHA

Ethyl Alcohol
CAS # 64-17-5

1000 ppm TWA; 1900 mg/m³ TWA

ACGIH

Ethyl Alcohol
CAS # 64-17-5

1000 ppm STEL

SAFETY DATA SHEET

Doc. ID: 472500-75 AG
Revised (year/month/day) 2015/05/12

Section 8 Exposure Controls and Personal Protection (Continued)

DFG MAK

Ethyl Alcohol
CAS # 64-17-5 1000 ppm Peak; 1920 mg/m³ Peak; 500 ppm TWA MAK; 960 mg/m³ TWA MAK

Ireland

Ethyl Alcohol
CAS # 64-17-5 1000 ppm STEL

IOELVs

None established

NIOSH

Ethyl Alcohol
CAS # 64-17-5 3300 ppm IDLH (10% LEL); 1000 ppm TWA; 1900 mg/m³ TWA

Japan

None established

8.2 Exposure controls

Engineering Controls

No special engineering controls are required. Use with good general ventilation.

Eye Protection

Safety glasses or chemical goggles should be worn to prevent eye contact.
Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.

Skin Protection

Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact.
Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

Respiratory Protection

Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid	Specific Gravity (Water=1.0)	≈ 1.04 @20°C
Color	Yellow to amber brown	Solubility	
Transparency	Clear	Water	Miscible
Odor	Alcohol odor	Organic	Not determined
pH	5.9 - 6.1	Partition coefficient: n-octanol/water	Not determined
Freezing Point	Not determined	Auto-ignition Temp.	Not applicable
Boiling Point	Not determined	Decomposition Temperature	Not determined
Flash Point	≈55°C (131°F)	Percent Volatiles	Not applicable

SAFETY DATA SHEET

Doc. ID: 472500-75 AG
Revised (year/month/day) 2015/05/12

Section 9 Physical and Chemical Properties (Continued)

Evaporation Rate	Not determined	Vapor Pressure	Not determined
Flammability (Solid, Gas)	Not applicable	Viscosity	Not determined
Flammability Limits	Not applicable	Explosive Properties	Not applicable
Vapor Density	Not determined	Oxidizing Properties	Not applicable
Odor Threshold	Ethyl Alcohol 180 ppm geometric mean air odor threshold = (detectable); 100 ppm geometric mean air odor threshold = (recognizable)		

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	The product is stable in accordance with recommended storage conditions.
10.3 Possibility of hazardous reactions	Avoid exposure to heat and incompatible materials.
10.4 Conditions to Avoid	Avoid contact with incompatible materials. Avoid exposure to heat and direct sunlight.
10.5 Incompatible materials	Strong oxidizers
10.6 Hazardous Decomposition Products	No decomposition products posing significant hazards would be expected from this product (an aqueous solution).

Section 11 Toxicological Information

11.1 Information on toxicological effects	
Toxicity Data for Hazardous Ingredients	
Ethyl Alcohol CAS # 64-17-5	Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h
Primary Routes of Exposure	Eye contact, ingestion, inhalation, and skin contact.
Skin Corrosion/Irritation	No data available.
Serious eye damage/eye irritation	No data available.
Respiratory/skin sensitization	May cause sensitization by inhalation.
Carcinogenicity	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 1272/2008 EC regulation.
Germ cell mutagenicity	No data available.
Reproductive Toxicity	No data available.

Section 11 Toxicological Information (Continued)

Specific target organ toxicity – single exposure

No data available.

Specific target organ toxicity – repeated exposure

No data available.

Aspiration hazard

No data available.

Other Information

No further relevant information available.

Section 12 Ecological Information

12.1 Ecotoxicity

Fresh Water Species

Ethyl Alcohol
CAS # 64-17-5

96 h LC50 *Oncorhynchus mykiss*: 12.0 - 16.0 mL/L [static]; 96 h LC50
Pimephales promelas: >100 mg/L [static]; 96 h LC50 *Pimephales promelas*:
13400 - 15100 mg/L [flow-through]

Microtox

No information available.

Water Flea

Ethyl Alcohol
CAS # 64-17-5

48 h LC50 *Daphnia magna*: 9268 - 14221 mg/L; 24 h EC50 *Daphnia magna*:
10800 mg/L; 48 h EC50 *Daphnia magna*: 2 mg/L [Static]

Fresh Water Algae

No information available.

12.2 Persistence and degradability Not determined for the product.

12.3 Bioaccumulation Not determined for the product.

12.4 Mobility in soil Not determined for the product.

12.5 Results of PBT and vPvB assessment

Not determined for the product. 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

Product Waste Disposal

Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.

Package disposal

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

13.2 Additional information

Suggested European waste catalogue 18 01 07 - chemicals other than those mentioned in 18 01 06. Dispose in accordance with national, state and local waste regulations.

Section 14 Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

Section 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US Federal and State Regulations

SARA 313 No ingredients listed.

California Proposition 65 No ingredients listed.

Massachusetts MSL Ethyl Alcohol is listed.

New Jersey Dept. of Health RTK List

Ethyl Alcohol is listed.

Pennsylvania RTK Ethyl Alcohol is listed.

EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

Water Hazard Class (Germany) WGK 1, low water endangering

REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.

No ingredients listed.

According to EC Directives (1999/45/EC and 67/548 EEC)

Harmful
Xn



Risk and Safety Phrases

R10 Flammable.

R42 May cause sensitization by inhalation.

S16 Keep away from sources of ignition - No smoking.

S36 Wear suitable protective clothing.

S7 Keep container tightly closed.

Canada

This product is exempt from WHMIS label and SDS requirements.

PIN Not applicable

Ingredients on Ingredient Disclosure List

Ethyl Alcohol

Potassium Iodide

Ingredients with unknown toxicological properties

Product is exempt

15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out.

Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.

SAFETY DATA SHEET

Doc. ID: 472500-75 AG
Revised (year/month/day) 2015/05/12

Section 16 Other Information

Beckman Coulter Safety Rating	Flammability: 2 Health: 3 Reactivity with Water: 0 Contact: 3	Code 0=None 1=Slight 2=Caution 3=Severe
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Revision Changes

Updated to GHS.

Hazard Class, hazard statements and risk phrase description from section 3

F - Highly flammable
Xn - Harmful
R11 Highly flammable.
R20/22 Harmful by inhalation and if swallowed.
R42 May cause sensitization by inhalation.
Acute Tox. Inhal. 4 - Acute Toxicity Inhalation, Category 4
Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4
Flam. Liq. 2 - Flammable Liquids, Category 2
Resp. Sens. 1 - Respiratory Sensitization Category 1
H225 - Highly flammable liquid and vapour.
H302 - Harmful if swallowed.
H332 - Harmful if inhaled.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road
CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act
CLP - Classification, Labeling and Packaging
DFGMAK - Republic Germany's maximum exposure limit
GHS - Globally Harmonized System
HCS - Hazard Communication Standard
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods
IOELVs - European Unions' Indicative Occupational Exposure Limit Values
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PBT - Persistent bioaccumulative and toxic substances
SARA - Superfund Amendments and Reauthorization Act
TDG - Canadian Transportation Of Dangerous Goods Regulations.
UN GHS - United Nations Globally Harmonized System
US DOT - United States Department of Transportation
WHMIS - Workplace Hazardous Material Information System
vPvB - Very persistent and very bioaccumulative substances

Section 16 Other Information (Continued)

LC50 - Lethal Concentration, 50%

EC50 - Effective Concentration, 50%

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