GF Healthcare

SAFETY DATA SHEET

New Zealand

Section 1. Identification

Other means of identification

Product name MabSelect Xtra™, 50 µL, 4 x 96 well

Catalogue Number 28-9436-29

Product type Liquid.

Identified uses

Analytical chemistry. Liquid chromatography. Research and Development

Supplier

GE Healthcare UK Ltd GE Healthcare Bio-Sciences

Amersham Place 8 Tangihua Street Little Chalfont Auckland 1010

Not available.

Buckinghamshire HP7 9NA England

+44 0870 606 1921

Emergency telephone number (with hours of operation) Person who prepared the MSDS:

msdslifesciences@ge.com 0800 733 893

(10am - 7pm)

Section 2. Hazards identification

3.1 - FLAMMABLE LIQUIDS - Category C **HSNO Classification**

6.4 - EYE IRRITATION - Category A (Irritant)

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 and has been classified according to the Hazardous Substances (Classifications) Regulations 2001.

GHS label elements

Signal word Warning

Flammable liquid and vapor. Hazard statements

Causes serious eye irritation.

Precautionary statements

Prevention Wear protective gloves: 1-4 hours (breakthrough time): butyl rubber, neoprene. Wear eye or face

protection: Recommended: safety glasses with side-shields. Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static

discharge. Keep container tightly closed.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with Response

water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. Wash

hands after handling.

Store in cool/well-ventilated place. Storage

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

regulations.

Symbol



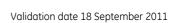


Other hazards which do not result in Not available. classification



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Section 3. Composition/information on ingredients

Substance/mixture Mixture
Other means of identification Not available.

CAS number/other identifiers

CAS number Not applicable.
EC number Mixture.
Product code 28-9436-29

 Ingredient name
 %
 CAS number

 Ethanol
 14 - 19
 64-17-5

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

Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms appear.

Ingestion Do not ingest. Get medical attention if symptoms appear.

Skin contact Wash with soap and water. Get medical attention if irritation develops.

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

InhalationNo known significant effects or critical hazards.IngestionIrritating to mouth, throat and stomach.Skin contactNo known significant effects or critical hazards.

Eye contact Causes serious eye irritation.

Over-exposure signs/symptoms

InhalationNo specific data.IngestionNo specific data.SkinNo specific data.

Eyes Adverse symptoms may include the following:

pain or irritation watering redness

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

Specific treatments Not available.

Notes to physician No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Protection of first-aiders No 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 Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable Do not use water jet.

Specific hazards arising from the

chemical

Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition

tion De

Decomposition products may include the following materials:

products

carbon dioxide carbon monoxide

products

Nata and India

Hazchem code Not available.



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Special precautions 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions

Avoid 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).

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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 Ethanol Exposure limits

NZ OSH (New Zealand, 1/2002). WES-TWA: 1880 mg/m³ 8 hour(s). WES-TWA: 1000 ppm 8 hour(s).

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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



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Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking Hygiene measures

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.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk Respiratory protection

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. Recommended: A respirator is not needed under normal and intended conditions of product use.

1-4 hours (breakthrough time): butyl rubber, neoprene Hand protection

Eye 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. Recommended: safety

glasses with side-shields

Skin 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. Recommended:

Section 9. Physical and chemical properties

Appearance

Physical state Liquid. [and Suspension.]

Color solution: Colorless. / Suspension.: White.

Sweetish. Alcohol-like. [Slight] Odor

180 ppm Odor threshold рΗ Not available. Melting point Not available. Not available. **Boiling point**

Closed cup: 38 to 43°C (100.4 to 109.4°F) Flash point

Not applicable. **Burning rate** Not applicable. **Burning time** Not available **Evaporation rate** Not available. Flammability (solid, gas) Not available. Lower and upper explosive

(flammable) limits

Not available. Vapor pressure Vapor density Not available. Relative density Not available.

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

Partition coefficient: n-

octanol/water

Not available.

Auto-ignition temperature Not available. Not available. **Decomposition temperature** SADT Not available. Not available. Viscosity

Aerosol product

Type of aerosol Not applicable. Heat of combustion Not available. Not applicable. Ignition distance Not applicable. **Enclosed space ignition - Time**

equivalent

Enclosed space ignition -**Deflagration density**

Not applicable.

Not applicable. Flame height Not applicable. Flame duration



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Section 10. Stability and reactivity

Chemical stability The product is stable.

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

Conditions to avoid Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind

or expose containers to heat or sources of ignition.

Incompatible materials Reactive or incompatible with the following materials:

oxidizing materials

Section 11. Toxicological information

Information on the likely routes of exposure

InhalationNo known significant effects or critical hazards.IngestionIrritating to mouth, throat and stomach.Skin contactNo known significant effects or critical hazards.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

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

Eye contact Adverse symptoms may include the following:

pain or irritation watering redness

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m3	4 hours

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethanol	Eyes - Mild irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Éyes - Severe irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	_	_	-

Conclusion/Summary

Skin Repeated exposure may cause skin dryness or cracking.

Sensitization

Not available.

Potential chronic health effects

General No known significant effects or critical hazards. No known significant effects or critical hazards. Inhalation No known significant effects or critical hazards. Ingestion No known significant effects or critical hazards. Skin contact No known significant effects or critical hazards. Eye contact No known significant effects or critical hazards. Carcinogenicity No known significant effects or critical hazards. Mutagenicity No known significant effects or critical hazards. **Teratogenicity Developmental effects** No known significant effects or critical hazards. Fertility effects No known significant effects or critical hazards.

Chronic toxicity



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Not available.

Carcinogenicity

Not available.

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

Specific target organ toxicity

Not available.

Aspiration hazard

Not available.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information

Adverse symptoms include the following: kidney abnormalities, liver abnormalities Adverse symptoms may include the following: central nervous system depression

Section 12. Ecological information

Ecotoxicity No known significant effects or critical hazards.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
Ethanol	Acute EC50 >100 ppm Fresh water Acute LC50 25500 ug/L Marine water	Daphnia - Daphnia magna - <24 hours Crustaceans - Artemia franchiscana - LARVAE	48 hours 48 hours
	Acute LC50 42000 ug/L Fresh water Chronic NOEC <6.3 a/L Fresh water	Fish - Oncorhynchus mykiss Daphnia - Daphnia maana	4 days 48 hours

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Ethanol	-	100 % - Readily - 20 days	-	-
Product/ingredient name	Aquatic half-life	Photolysis		Biodegradability
Fthanol	-	_		Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Ethanol	-	0.66	low

Mobility in soil

Soil/water partition coefficient (Koc) Not available.

Other adverse effects No known significant effects or critical hazards.



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Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*
New Zealand Class	Not regulated.	-	-	-
ADG Class	Not regulated.	-	-	-
UN Class	Not regulated.	-	-	-
ADR/RID Class	Not regulated.	-	-	-
IATA Class	Not regulated.	-	-	-

Remarks

IATA Special Provision A 58 - Aqueous solutions containing 24% or less alcohol by volume is not subject to these regulations.

IMDG Class	Not regulated.	-	-	-
PG* : Packing group				

Section 15. Regulatory information

New Zealand Inventory of Chemicals All components are listed or exempted.

(NZIoC)

HSNO Approval Number HSR001144
HSNO Group Standard Not available.

HSNO Classification 3.1 - FLAMMABLE LIQUIDS - Category C

6.4 - EYE IRRITATION - Category A (Irritant) All components are listed or exempted.

Safety, health and environmental regulations specific for the product

Australia inventory (AICS)

No known specific national and/or regional regulations applicable to this product (including its

ingredients).

Section 16. Other information

<u>History</u>

Date of printing18 September 2011Date of issue/ Date of revision18 September 2011Date of previous issue12/17/2010.Version0.91

Key to abbreviations ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Inland

Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

 ${\sf IATA} = {\sf International\ Air\ Transport\ Association}$

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)

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

UN = United Nations

References Not available.



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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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