



**FSL-A(GALNa3[Fa2]GALb)-SA1-L1 #421604,
FSL-B(GALa3[Fa2]GALb)-SA1-L1 #199283**

IMPORTANT NOTICE This Material Safety Data Sheet (MSDS) is prepared by KODE Biotech Materials Limited in accordance with the New Zealand Occupational Safety & Health Service, Department of Labour Guidelines for the Preparation of Material Safety Data Sheets in New Zealand. The information contained herein must not be altered or deleted. Additional information may be appended to the MSDS, but it must be marked clearly to indicate that it is not part of the original.

1. COMPANY DETAILS

Supplier Name: KODE Biotech Materials Limited CN #2153669

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IDENTIFICATION

2. IDENTIFICATION OF THE MATERIAL

Product Names: FSL-A(GALNa3[Fa2]GALb)-SA1-L1;
FSL-B(GALa3[Fa2]GALb)-SA1-L1

Other Names:

Manufacturer's Product Code: 421604 - FSL-A(GALNa3[Fa2]GALb)-SA1-L1;
199283 - FSL-B(GALa3[Fa2]GALb)-SA1-L1

United Nations Number: None allocated

Dangerous Good Class: None allocated

Hazchem Code: None allocated

Toxic Substances Schedule: Not listed

Uses: To modify the surface of cells, liposomes or virions with blood group antigens.
For *in vitro* diagnostic and research use only

3. PHYSICAL DESCRIPTION/PROPERTIES

Appearance:	White or pale yellow , non crystalline, lyophilised powder
Odour:	Odourless
Boiling Point/Melting Point:	Not determined
Specific Gravity:	Not determined
Vapour Pressure:	Negligible
Flashpoint:	Not determined
Flammability Limits:	Not determined
Solubility in Water:	High – disperses as a clear solution
Reactivity:	None known
Incompatibility (materials to avoid):	Strong acidic or basic reagents, oxidants, unstable in water
Hazardous Decomposition or By-products:	Not determined
Hazardous polymerisation:	Will not occur

4. COMPOSITION/INFORMATION ON INGREDIENTS

General Description: Substance consists of a trisaccharide linked to a lipid tail (L- α -phosphatidylethanolamine dioleoyl) as a sodium salt

<i>Name:</i>	MW	CAS number	Brutto formula	Proportion
FSL-A(GALNa3[Fa2]GALb)-SA1-L1	1462.75	865529-57-3	C70H125N3Na1O25P1	100%
FSL-B(GALa3[Fa2]GALb)-SA1-L1	1421.69	865529-69-7	C68H122N2Na1O25P1	100%

Note: CAS numbers relate to the “free form”, i.e. the acid, not the salt, of each construct.

HEALTH HAZARD INFORMATION

5. HEALTH EFFECTS

- Routes of Entry:** May enter the body through ingestion, skin and eye contact. If accidentally exposed any symptoms or untoward health effects are unlikely.
- Toxicity:** We are not aware of any toxicity for this product. These constructs and analogues have been intravenously injected into experimental animals and no adverse consequences have been observed.
- Health Hazard:** We are not aware of any reported or unreported health hazards for this product
- Carcinogenicity:** Not listed
- Signs/Symptoms of Exposure:** Unknown
- Medical Conditions Generally Aggravated by Exposure:** Unknown
- Potential Health Hazard:** Substances may not be used as drugs, cosmetics, food additives or household chemicals. For Laboratory Diagnostic or Research Use Only
- Chronic:** None known or expected

6. FIRST AID MEASURES

- Eye:** Flush with water for at least 15 minutes. If symptoms arise seek medical attention.
- Swallowed:** DO NOT INDUCE VOMITING. Wash out mouth with water and give water to drink. If symptoms arise seek medical attention.
- Skin:** Remove contaminated clothing. Wash affected area with soap and water for at least 15 minutes. If symptoms arise seek medical attention.
- Inhaled:** Remove to fresh air. Give oxygen if breathing is difficult and seek medical attention.
- First Aid Facilities:** Ensure water is available at point of use.
- Advice To Doctor:** Treat symptomatically. There is no known or expected toxicity for these substances.

PRECAUTIONS FOR USE

7. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Exposure Standards:** No exposure limits set
- Engineering Controls:** None under normal operating conditions
- Personal Protection:** Wear protective gloves and safety glasses when handling this product. Do not pipette by mouth.
- Precautions for Safe Handling and Use/ Control Measures:** Ventilation – not necessary
No special precautions required
Clean up spills with soap and water

Flammability: Combustible

SAFE HANDLING INFORMATION

8. STORAGE AND TRANSPORT

- Classification:** Not classified as a dangerous good
Store powder below minus 10 degrees C (protected from light).
Opened product must be stored in a desiccator below minus 10 degrees C.
- Storage:** Product reconstituted in saline/PBS should be kept sterile and stored for no longer than 1 month at 4 degrees C. It is recommended that stored solutions be sonicated for 60 seconds before re-use.
Product reconstituted in water can be stored for no longer than 1 day at 4 degrees C.
- Transport:** Transport below 25 degrees C. Can be held at 4 degrees C for up to one month in temporary storage.
- Stability:** Unopened vials are expected to be stable as powder for 2 years at below minus 10 degrees C.
Opened vials are expected to be stable as powder for >12 months if stored dry (desiccated) and at below minus 10 degrees C.
Reconstituted solutions (2 mg/ml) are expected to be stable for 24 months if stored at below minus 10 degrees C.
Product reconstituted in water is unstable
Stability data is not yet available for storage of reconstituted product in frozen state.
- Subsidiary Risk:** None allocated
- Packing Group:** None allocated
- Hazchem Code:** None allocated

9. SPILLS AND DISPOSAL

Minor Spills:

- Wear protective gloves and safety glasses.
- Soak up spills with absorbent material i.e. paper towels or vermiculite.
- Place spilled material in clean, dry, sealed container for disposal.
- Decontaminate area with 1% sodium hypochlorite in water.

Major Spills:

- Wear protective gloves and safety glasses.
- Contain and absorb spills using earth, sand or inert absorbent.
- Prevent material entering open drains and waterways.
- Collect residues and seal in labelled drums for disposal.
- Decontaminate area with 1% sodium hypochlorite in water.

Disposal: In accordance with state land and waste management authority. For good environmental practice avoid discharge to waterways.

10. FIRE/EXPLOSION HAZARD

Fire/Explosion Hazard Combustible, not explosive

11. ECOLOGICAL INFORMATION AND DISPOSAL CONSIDERATIONS

Ecotoxicity: None known. Unlikely to be harmful to the environment.

Environmental Fate: Degraded by micro-organisms

12. REGULATORY INFORMATION

Poisons Schedule Number: Not scheduled

Dangerous Good Class: None allocated

Subsidiary Risk: None allocated

Packing Group: None allocated

Hazchem Code: None allocated

13. CONTACT POINT

Further Information: Call +64 9 921 9708 or +64 9 921 9710 during working hours or +64 21 71 5494 after hours

Website Information: Further information is available at www.KODEBiotech.com

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14. DOCUMENT CONTROL

Document number: MSDS300106

Date of Issue: 26 September 2008

Last Revised: 18 June 2010

Reason for Revision: 30 March 2009 Update of storage criteria and inclusion of R&D constructs
Update of storage conditions to specify stability relates to unopened vials

22 October – Update Incompatibility (materials to avoid) and Fire/Explosion Hazard sections

21 December – Update, Uses, Incompatibility, Potential Health Hazard to include R&D use, Stability information

18 June 2010 – delete FSL-Lea from sheet (now own MSDS sheet MSDS3014)
Remove obsolete R&D catalogue numbers