



# MATERIAL SAFETY DATA SHEET

## 6-plex assay cocktail of IDUA, GAA, GLA, GALC, GBA and SMPD1 Enzymes

### 1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY UNDERTAKING

Name: 6-plex assay cocktail of IDUA, GAA, GLA, GALC, GBA and SMPD1 Enzymes  
Product Code: CM2  
Synonyms: -  
Recommended uses: For R&D use only. Not for human or veterinary use.  
Supplier: GelbChem, LLC. 4000 Mason Road, Suite 300, Seattle, WA-98105  
Emergency contact numbers: Telephone: +1 206 717 3515.  
Email address: contact@gelbchem.com

### 2. HAZARDS IDENTIFICATION

**Classification:**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 or GHS. Not a hazardous substance or mixture according to EC-Directives 67/548/EEC or 1999/45/EC.

**Labelling and precautionary statements:**

The product does not need to be labeled in accordance with EC directives or respective national laws.

**Hazard statement(s):** - Not required.

**Precautionary statement(s):** - Not required.

**Hazard symbol(s):** - Not required.

**R-phrase(s):** - Not required.

**S-phrase(s):** - Not required.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Molecular Formula	Molecular Weight
4-pentylumbelliferyl- $\alpha$ -L-idopyranosiduronic acid	C <sub>20</sub> H <sub>24</sub> O <sub>9</sub>	408.40
7-hydroxy-4-pentylcoumarin- <sup>13</sup> C <sub>4</sub>	C <sub>10</sub> <sup>13</sup> C <sub>4</sub> H <sub>16</sub> O <sub>3</sub>	236.25
<i>t</i> -butyl (7-benzamidoheptyl){3-[(4-hydroxyphenyl)amino]-3-oxopropyl}carbamate- $\alpha$ -glucoside	C <sub>34</sub> H <sub>49</sub> N <sub>3</sub> O <sub>10</sub>	659.77
<i>t</i> -butyl (7-benzamidoheptyl){3-[(4-hydroxyphenyl)amino]-3-oxopropyl}carbamate-d <sub>5</sub>	C <sub>28</sub> H <sub>34</sub> D <sub>5</sub> N <sub>3</sub> O <sub>5</sub>	502.66



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<i>t</i> -butyl (6-benzamidohexyl){3-[(4-hydroxyphenyl)amino]-3-oxopropyl}carbamate- $\alpha$ -galactoside	C <sub>33</sub> H <sub>47</sub> N <sub>3</sub> O <sub>10</sub>	645.74
<i>t</i> -butyl (6-benzamidohexyl){3-[(4-hydroxyphenyl)amino]-3-oxopropyl}carbamate-d5	C <sub>27</sub> H <sub>32</sub> D <sub>5</sub> N <sub>3</sub> O <sub>5</sub>	488.63
<i>N</i> -octanoylsphingosine- $\beta$ -galactoside	C <sub>32</sub> H <sub>61</sub> NO <sub>8</sub>	587.84
<i>N</i> -octanoylsphingosine-d5	C <sub>26</sub> H <sub>46</sub> D <sub>5</sub> NO <sub>3</sub>	430.73
<i>N</i> -dodecanoylsphingosine- $\beta$ -glucoside	C <sub>36</sub> H <sub>69</sub> NO <sub>8</sub>	643.95
<i>N</i> -dodecanoylsphingosine-d5	C <sub>30</sub> H <sub>54</sub> D <sub>5</sub> NO <sub>3</sub>	486.84
<i>N</i> -hexanoylsphingosine-d7	C <sub>24</sub> H <sub>40</sub> D <sub>7</sub> NO <sub>3</sub>	404.68
<i>N</i> -hexanoyl-D-sphingomyelin	C <sub>29</sub> H <sub>59</sub> N <sub>2</sub> O <sub>6</sub> P	562.76
Oleic Acid	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	282.47
Buffer:		
Sodium taurocholate	C <sub>26</sub> H <sub>44</sub> NNaO <sub>7</sub> S	537.7
Acarbose	C <sub>25</sub> H <sub>43</sub> NO <sub>18</sub>	645.6
D-saccharic Acid 1,4-lactone (hydrate)	C <sub>6</sub> H <sub>8</sub> O <sub>7</sub> .H <sub>2</sub> O	210.1
Zinc Chloride	ZnCl <sub>2</sub>	136.3
N-acetyl-galactosamine	C <sub>8</sub> H <sub>15</sub> NO <sub>6</sub>	221.2
Succinic Acid	C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	118.1

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### 4. FIRST AID MEASURES

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Eye contact:	Immediately flush eye with copious amounts of water for at least 15 minutes. Get medical aid immediately.
Skin contact:	Get medical aid. Immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse.
Inhalation:	Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Get medical aid.
Ingestion:	Wash out mouth with water provided person is conscious. Call a physician.
Notes to Physician:	Treat symptomatically and supportively.

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### 5. FIRE-FIGHTING MEASURES

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Personal precautions:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Extinguishing media:	In case of fire use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

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### 6. ACCIDENTAL RELEASE MEASURES

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General Information:	Use proper personal protective equipment as indicated in Section 8.
Personal precautions:	Wear self-contained breathing apparatus, eye protection and gloves. Keep personal hygiene. Avoid dust formation.
Environmental precautions:	Do not let product enter the drains.
Spills/Leaks:	Sweep up and place the material in appropriate container for disposal. Ventilate area, clean up spills and wash spill site after material pickup is complete, observing precautions in the Protective Equipment section.

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### 7. HANDLING AND STORAGE

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Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
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## 6-plex assay cocktail of IDUA, GAA, GLA, GALC, GBA and SMPD1 Enzymes

Storage: Store in a cool, dry, well-ventilated area. Keep container tightly closed. Freeze. Keep cold. Store at -20°C (except for the buffer which should be stored at 4°C).

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Contains no substances with occupational exposure limit values.

**Personal protection equipment:**

Eye protection: Wear appropriate protective eyeglasses, chemical safety goggles or face-shield (min. 8-inch) as described by OSHA's eye and face protection regulations.

Skin protection: Wear appropriate protective gloves to prevent skin exposure, as defined in EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection: Appropriate protective clothing, overalls.

Respiratory protection: Where risk assessment indicates air-purifying respirators are required use a dust mask type N95 (US) or type P1 (EN 143) respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Respirators and components must tested and approved under appropriate government standards - NIOSH (US) or CEN (EU).

Hygiene measures: Use good working practices. Wash hands and face thoroughly after handling.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance:	S/IS mixture: White to off-white solid.
Odour:	Data not available/does not apply.
Odour threshold:	Data not available/does not apply.
pH:	Data not available/does not apply.
Melting point:	Data not available/does not apply.
Boiling point:	Data not available/does not apply.
Flash point:	Data not available/does not apply.
Evaporation rate:	Data not available/does not apply.
Flammability:	Data not available/does not apply.
Flammability or explosive limits:	Data not available/does not apply.
Vapor pressure:	Data not available/does not apply.
Vapor density:	Data not available/does not apply.
Density:	Data not available/does not apply.
Solubility:	Data not available/does not apply.
Partition coefficient: n-octanol/water	Data not available/does not apply.
Auto-ignition temperature:	Data not available/does not apply.
Decomposition temperature:	Data not available/does not apply.
Viscosity:	Data not available/does not apply.



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### 10. STABILITY AND REACTIVITY

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Chemical stability:	Stable under recommended storage conditions.
Conditions to avoid:	Data not available.
Incompatibilities with other materials:	Strong oxidizing agents.
Hazardous decomposition products:	Carbon oxide, sulfur oxides.
Hazardous polymerization:	Data not available.

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### 11. TOXICOLOGICAL INFORMATION

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<b>RTCS #:</b>	Data not available.
<b>Acute toxicity:</b>	Data not available.
<b>Skin corrosion/irritation:</b>	Data not available.
<b>Serious eye damage/eye irritation:</b>	Data not available.
<b>Respiratory or skin sensitization:</b>	Data not available.
<b>Germ cell mutagenicity:</b>	Data not available.
<b>Carcinogenicity:</b> IARC:	To the best of our knowledge, this compound has not been identified as possible or potential human carcinogen by IARC.
<b>Reproductive toxicity:</b>	Data not available.
<b>Specific target organ toxicity - single exposure:</b>	Data not available.
<b>Specific target organ toxicity - repeated exposure:</b>	Data not available.
<b>Aspiration hazard:</b>	Data not available.
<b>Signs and symptoms of exposure:</b>	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
<b>Potential health effects:</b>	
Eye:	May cause eye irritation.
Skin:	May be harmful by skin absorption. May cause skin irritation.
Ingestion:	May be harmful if swallowed.

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Inhalation: May be harmful if inhaled.  
May cause respiratory tract irritation.  
Chronic: No information found.

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### 12. ECOLOGICAL INFORMATION

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Data not available.

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### 13. DISPOSAL CONSIDERATIONS

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Dispose of in a manner consistent with federal, state, and local regulations. Contact a licensed professional waste disposal service to dispose of this material.

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### 14. TRANSPORT INFORMATION

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#### ADR/RID

Not classified as hazardous for transport.

#### IMDG

Not classified as hazardous for transport.

#### IATA

Not classified as hazardous for transport.

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### 15. REGULATORY INFORMATION

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This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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### 16. ADDITIONAL INFORMATION

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Further information on PPE:

European Standard & performance category markings:

EN143 -

EN374 -

Particulates filter.

Protects hands against chemicals and/or microorganisms.

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Gas & vapour protection:	A	Organic vapours
	B	Inorganic vapours
	E	Acid gases
	K	Ammonia and its derivatives

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.