



MATERIAL SAFETY DATA SHEET

GNS Assay Kit

I. Substance and Supplier Identification

Product Name(s):	GNS Assay Kit
Product Code(s):	CS17
Other Names:	N-acetylglucosamine-6-sulfatase Assay Kit
Recommended Uses:	For R&D use only. Not for human or veterinary use.
Supplier:	Enfanos, LLC. 4000 Mason Rd. STE 300 Seattle, WA 98195 Ph: +1 206 717 3515 contact@enfanos.com
In Case of Emergency, Contact:	In the event of a medical emergency, please dial 911.

2. Hazards Identification

This product is not classified as hazardous according to the criteria in Regulation (EC) No. 1272/2008 and GHS. Not a hazardous substance or mixture according to EC-Directives 67/548/EEC or 1999/45/EC.

This product is not a dangerous good for transport. Refer to Section 14 for details.

Labelling and Precautionary Statements:

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

Hazard Statement(s):	None
Precautionary Statement(s):	None
Hazard Symbol(s):	None
R-phrases(s):	None
S-phrases(s):	None

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3. Composition/Information on Ingredients

S/IS Vial Ingredients:

Chemical Name	Molecular Formula	Molecular Mass, g/mol	Classification
4-butylumbelliferyl 6-Sulfo-2-acetamido-2-deoxy- α -D-glucoside	$C_{21}H_{30}N_2O_{11}S$	518.5	No hazard
4-butylumbelliferyl 2-acetamido-2-deoxy- α -D-glucoside-d3	$C_{21}H_{24}D_3NO_8$	424.5	No hazard
4-methylumbelliferyl 2-acetamido-2-deoxy- α -D-glucoside	$C_{18}H_{21}NO_8$	379.4	No hazard

No components are present at $\geq 1\%$ (or $\geq 0.1\%$ for carcinogens) that are classified as hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. First Aid Measures

Eye Contact:	Hold eyes open, flush continuously with water for at least 15 minutes. Seek medical attention if irritation develops and persists.
Skin Contact:	Wash skin with plenty of water, while removing contaminated clothing and shoes. Wash contaminated clothing before re-use. Seek medical attention if skin irritation develops and persists.
Inhalation:	Remove to fresh air. Seek medical attention if symptoms persist.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth. If conscious give small quantities of water. Never give anything by mouth to an unconscious person. Seek medical advice. If vomiting occurs, keep head below hips to prevent aspiration to lungs.
Notes to Physician:	Treat symptomatically.

5. Fire-Fighting Measures

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

6. Accidental Release Measures

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 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.

7. Handling and Storage

Handling: Wash hands thoroughly after handling. Remove contaminated clothing and wash before re-use. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: S/IS Vial: Store at $<-10^{\circ}\text{C}$ under dry conditions. Keep container tightly closed.
Buffer: Store between $2-8^{\circ}\text{C}$. Keep container tightly closed.

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8. Exposure Controls/Personal Protection

Do not contain substances with occupational exposure limit values.

Environmental Controls:

Handwashing facilities should be provided in the work area. For typical conditions of storage and use, natural ventilation should be adequate. In enclosed areas, mechanical ventilation may be required if high volumes of dust are generated.

Personal Protective 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.

Hand Protection:

Gloves are recommended when handling especially for large quantities. Refer to EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin and Body Protection:

Use protective clothing when handling large quantities. Remove any contaminated clothing to avoid prolonged contact with the skin. Wash work clothes regularly.

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 be 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

Description:	S/IS vial: White to off-white solid Buffer: Clear liquid		
Odor:	Not determined/ does not apply	Odor Threshold:	Not determined/ does not apply
pH (20°C):	Not determined	Solubility:	Not determined
Melting Point:	Not determined	Boiling Point:	Not determined
Flammability:	Not flammable	Flash Point:	Not applicable
UEL/LEL:	Not applicable	Bulk Density:	Not available
Relative Density:	Not determined	Vapor Density:	Not determined
Vapor Pressure:	Not determined	Viscosity:	Not applicable
Decomposition temp:	Not determined	Autoignition temp:	Not applicable
Octanol/Water Partition Coefficient:	Not applicable	Particle Characteristics:	Not available

10. Stability and Reactivity

Stability:	Stable under recommended storage conditions.
Reactivity:	Not expected to be reactive.
Conditions to avoid:	Data not available.
Incompatibility:	Incompatible with strong oxidizing reagents.
Hazardous Polymerization:	Data not available.
Hazardous Decomposition:	May form toxic fumes containing oxides of carbon, nitrogen, and sulfur.

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11. Toxicological Information

RTCS #:	Data not available.
Acute toxicity:	Data not available.
Skin corrosion/irritation:	Data not available.
Serious eye damage/eye irritation:	Data not available.
Respiratory or skin sensitization:	Data not available.
Germ cell mutagenicity:	Data not available.
Carcinogenicity (IARC):	To the best of our knowledge, this material has not been identified as possible or potential human carcinogen by IARC.
Reproductive Toxicity:	Data not available.
Specific target organ toxicity – single exposure:	Data not available.
Specific target organ toxicity – repeated exposure:	Data not available.
Aspiration hazard:	Data not available.
Signs and symptoms of exposure:	To the best of our knowledge, the chemical, physical and toxicological properties of this material have not been thoroughly investigated.
Potential health effects:	Eye: May cause eye irritation. Skin: May be harmful by skin absorption. May cause skin irritation. Ingestion: May be harmful if swallowed. Inhalation: May be harmful if inhaled. May cause respiratory irritation. Chronic: No information found.

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12. Ecological Information

Data not available.

13. Disposal Considerations

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

14. Transport Information

ADR/RID

Not classified as hazardous for transport.

IMDG

Not classified as hazardous for transport.

IATA

Not classified as hazardous for transport.

15. Regulatory Information

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

16. Additional Information

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.