

SAFETY DATA SHEET



IFC Sample Kit, Part Number 190418701

Section 1. Identification

This product is considered an article. This Material Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

Product name : IFC Sample Kit, Part Number 190418701
Part No. (Chemical Kit) : 190418701
Part No. : Sucrose Sample Purchase SPEC 190336500
 99% D2O Sample 190356900
 0.2% v/v H2O in D2O Microflow sample 190521700
 50mM, 1% H2O/D2O Sodium Acetate Solution 190555700
 10 mM 13C Enriched Sodium Acetate 190605300
Validation date : 12/19/2013.

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

Material uses : Analytical chemistry.
 Sucrose Sample Purchase SPEC
 99% D2O Sample
 0.2% v/v H2O in D2O Microflow sample
 50mM, 1% H2O/D2O Sodium Acetate Solution
 10 mM 13C Enriched Sodium Acetate

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 Logistics Center - Americas
 500 Ships Landing Way
 New Castle, Delaware 19720
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

OSHA/HCS status : Sucrose Sample Purchase SPEC This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 99% D2O Sample While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this

Section 2. Hazards identification

0.2% v/v H ₂ O in D ₂ O Microflow sample	product. While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
50mM, 1% H ₂ O/D ₂ O Sodium Acetate Solution	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
10 mM 13C Enriched Sodium Acetate	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

Sucrose Sample Purchase SPEC

Comb. Dusts
H373

COMBUSTIBLE DUSTS
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (gastrointestinal tract) (oral) - Category 2

2.2 GHS label elements

Hazard pictograms

:



Signal word

: Sucrose Sample Purchase SPEC	Warning
99% D ₂ O Sample	No signal word.
0.2% v/v H ₂ O in D ₂ O Microflow sample	No signal word.
50mM, 1% H ₂ O/D ₂ O Sodium Acetate Solution	No signal word.
10 mM 13C Enriched Sodium Acetate	No signal word.

Hazard statements

: Sucrose Sample Purchase SPEC	No Code(s) - May form combustible dust concentrations in air. H373 - May cause damage to organs through prolonged or repeated exposure if swallowed. (gastrointestinal tract)
99% D ₂ O Sample	No known significant effects or critical hazards.
0.2% v/v H ₂ O in D ₂ O Microflow sample	No known significant effects or critical hazards.
50mM, 1% H ₂ O/D ₂ O Sodium Acetate Solution	No known significant effects or critical hazards.
10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.

Precautionary statements

Section 2. Hazards identification

Prevention	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	P260 - Do not breathe dust or mist. Not applicable. Not applicable. Not applicable. Not applicable.
Response	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	P314 - Get medical attention if you feel unwell. Not applicable. Not applicable. Not applicable. Not applicable.
Storage	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Keep container tightly closed. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Prevent dust accumulation. None known. None known. None known. None known.
2.3 Other hazards		
Hazards not otherwise classified	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. None known. None known. None known. None known.

Section 3. Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

Substance/mixture	: Sucrose Sample Purchase SPEC	Substance
	99% D2O Sample	Mixture
	0.2% v/v H2O in D2O Microflow sample	Mixture
	50mM,1% H2O/D2O Sodium Acetate Solution	Mixture
	10 mM 13C Enriched Sodium Acetate	Mixture

Ingredient name	%	CAS number
Sucrose Sample Purchase SPEC Sucrose	60 - 100	57-50-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

4.1 Description of necessary first aid measures

Eye contact	: Sucrose Sample Purchase SPEC	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 following exposure or if feeling unwell.
	99% D2O Sample	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	0.2% v/v H2O in D2O Microflow sample	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	50mM,1% H2O/D2O Sodium Acetate Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10 mM 13C Enriched Sodium Acetate	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Sucrose Sample Purchase SPEC	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get

Section 4. First aid measures

medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and

Skin contact

: Sucrose Sample Purchase SPEC

99% D2O Sample

0.2% v/v H₂O in D₂O Microflow sample

50mM, 1% H₂O/D₂O Sodium Acetate Solution

10 mM ¹³C Enriched Sodium Acetate

99% D2O Sample

0.2% v/v H₂O in D₂O Microflow sample

50mM, 1% H₂O/D₂O Sodium Acetate Solution

10 mM ¹³C Enriched Sodium Acetate

Ingestion

: Sucrose Sample Purchase SPEC

99% D2O Sample

0.2% v/v H₂O in D₂O Microflow sample

Section 4. First aid measures

50mM, 1% H₂O/D₂O Sodium Acetate Solution

the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

10 mM ¹³C Enriched Sodium Acetate

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Sucrose Sample Purchase SPEC

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

99% D₂O Sample
0.2% v/v H₂O in D₂O Microflow sample

No known significant effects or critical hazards.
No known significant effects or critical hazards.

50mM, 1% H₂O/D₂O Sodium Acetate Solution
10 mM ¹³C Enriched Sodium Acetate

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Inhalation

: Sucrose Sample Purchase SPEC

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

99% D₂O Sample
0.2% v/v H₂O in D₂O Microflow sample

No known significant effects or critical hazards.
No known significant effects or critical hazards.

50mM, 1% H₂O/D₂O Sodium Acetate Solution
10 mM ¹³C Enriched Sodium Acetate

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Skin contact

: Sucrose Sample Purchase SPEC

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

99% D₂O Sample
0.2% v/v H₂O in D₂O Microflow sample

50mM, 1% H₂O/D₂O Sodium Acetate Solution
10 mM ¹³C Enriched Sodium Acetate

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Ingestion

: Sucrose Sample Purchase SPEC

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

99% D₂O Sample
0.2% v/v H₂O in D₂O Microflow sample

50mM, 1% H₂O/D₂O Sodium Acetate Solution
10 mM ¹³C Enriched Sodium Acetate

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Section 4. First aid measures

Over-exposure signs/symptoms

Eye contact	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Adverse symptoms may include the following: irritation redness No specific data. No specific data. No specific data. No specific data.
Inhalation	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Adverse symptoms may include the following: respiratory tract irritation coughing No specific data. No specific data. No specific data. No specific data.
Skin contact	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	No specific data. No specific data. No specific data. No specific data. No specific data.
Ingestion	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	No specific data. No specific data. No specific data. No specific data. No specific data.

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

Notes to physician	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
---------------------------	---	---

Section 4. First aid measures

Specific treatments	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	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. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Use dry chemical powder. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Do not use water jet. None known. None known. None known. None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: Sucrose Sample Purchase SPEC 99% D2O Sample 0.2% v/v H2O in D2O Microflow sample 50mM, 1% H2O/D2O Sodium Acetate Solution 10 mM 13C Enriched Sodium Acetate	Fine dust clouds may form explosive mixtures with air. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
---	---	--

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Sucrose Sample Purchase SPEC
99% D2O Sample
0.2% v/v H2O in D2O Microflow sample
50mM, 1% H2O/D2O Sodium Acetate Solution
10 mM 13C Enriched Sodium Acetate

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.

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.

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.

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.

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.

Special protective equipment for fire-fighters

: Sucrose Sample Purchase SPEC
99% D2O Sample
0.2% v/v H2O in D2O Microflow sample
50mM, 1% H2O/D2O Sodium Acetate Solution
10 mM 13C Enriched Sodium Acetate

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions	: Sucrose Sample Purchase SPEC	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).
	99% D2O Sample	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).
	0.2% v/v H2O in D2O Microflow sample	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).
	50mM, 1% H2O/D2O Sodium Acetate Solution	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).
	10 mM 13C Enriched Sodium Acetate	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).

6.3 Methods and materials for containment and cleaning up

Sucrose Sample Purchase SPEC	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
99% D2O Sample	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. Dispose of via a licensed waste disposal contractor.
0.2% v/v H2O in D2O Microflow sample	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. Dispose of via a licensed waste disposal contractor.
50mM, 1% H2O/D2O Sodium Acetate Solution	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. Dispose of via a licensed waste disposal contractor.
10 mM 13C Enriched Sodium Acetate	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. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	: Sucrose Sample Purchase SPEC	Put on appropriate personal protective equipment (see Section 8). Do not breathe dust. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. 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.
	99% D2O Sample	Put on appropriate personal protective equipment (see Section 8).
	0.2% v/v H ₂ O in D ₂ O Microflow sample	Put on appropriate personal protective equipment (see Section 8).
	50mM, 1% H ₂ O/D ₂ O Sodium Acetate Solution	Put on appropriate personal protective equipment (see Section 8).
	10 mM ¹³ C Enriched Sodium Acetate	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 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. See also Section 8 for additional information on hygiene measures.	

7.2 Conditions for safe storage, including any incompatibilities

: Sucrose Sample Purchase SPEC	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.
99% D2O Sample	Store in accordance with local regulations. 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. 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

Section 7. Handling and storage

0.2% v/v H ₂ O in D ₂ O Microflow sample	unlabeled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations. 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. 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.
50mM, 1% H ₂ O/D ₂ O Sodium Acetate Solution	Store in accordance with local regulations. 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. 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.
10 mM ¹³ C Enriched Sodium Acetate	Store in accordance with local regulations. 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. 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.

7.3 Specific end use(s)

Recommendations

: Sucrose Sample Purchase SPEC	Industrial applications, Professional applications.
99% D ₂ O Sample	Industrial applications, Professional applications.
0.2% v/v H ₂ O in D ₂ O Microflow sample	Industrial applications, Professional applications.
50mM, 1% H ₂ O/D ₂ O Sodium Acetate Solution	Industrial applications, Professional applications.
10 mM ¹³ C Enriched Sodium Acetate	Industrial applications, Professional applications.

Industrial sector specific solutions

: Not applicable.

Section 8. Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Sucrose Sample Purchase SPEC Sucrose	ACGIH TLV (United States, 3/2012). TWA: 10 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust NIOSH REL (United States, 1/2013). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total OSHA PEL (United States, 6/2010). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust

8.2 Exposure controls

Appropriate engineering controls

- If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Hygiene measures

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking 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.

Eye/face 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body 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.

Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk 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.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Sucrose Sample Purchase SPEC	Solid. [Crystals. / Powder.]
	99% D2O Sample	Liquid.
	0.2% v/v H2O in D2O Microflow sample	Liquid.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Liquid.
	10 mM 13C Enriched Sodium Acetate	Liquid.
Color	: Sucrose Sample Purchase SPEC	White.
	99% D2O Sample	Colorless.
	0.2% v/v H2O in D2O Microflow sample	Colorless.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Colorless.
	10 mM 13C Enriched Sodium Acetate	Colorless.
Odor	: Sucrose Sample Purchase SPEC	Odorless.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Odor threshold	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
pH	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	7
	0.2% v/v H2O in D2O Microflow sample	6 to 8
	50mM, 1% H2O/D2O Sodium Acetate Solution	7
	10 mM 13C Enriched Sodium Acetate	7

Section 9. Physical and chemical properties

Melting point	: Sucrose Sample Purchase SPEC	185.5°C (365.9°F)
	99% D2O Sample	3.81°C (38.9°F)
	0.2% v/v H2O in D2O Microflow sample	3.81°C (38.9°F)
	50mM,1% H2O/D2O Sodium Acetate Solution	3.81°C (38.9°F)
	10 mM 13C Enriched Sodium Acetate	3.81°C (38.9°F)
Boiling point	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	101.42°C (214.6°F)
	0.2% v/v H2O in D2O Microflow sample	101.42°C (214.6°F)
	50mM,1% H2O/D2O Sodium Acetate Solution	101.42°C (214.6°F)
	10 mM 13C Enriched Sodium Acetate	101.42°C (214.6°F)
Flash point	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM,1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Evaporation rate	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM,1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Flammability (solid, gas)	: Sucrose Sample Purchase SPEC	Emits toxic fumes when heated to decomposition.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM,1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Lower and upper explosive (flammable) limits	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM,1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Vapor pressure	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM,1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Vapor density	:	

Section 9. Physical and chemical properties

	Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Relative density	: Sucrose Sample Purchase SPEC	1.59
	99% D2O Sample	1.1044 [(D ₂ O)]
	0.2% v/v H2O in D2O Microflow sample	1.1044 [(D ₂ O)]
	50mM, 1% H2O/D2O Sodium Acetate Solution	1.1044 [D ₂ O]
	10 mM 13C Enriched Sodium Acetate	1.1044 [D ₂ O]
Solubility	: Sucrose Sample Purchase SPEC	Easily soluble in the following materials: cold water, hot water and methanol. Insoluble in the following materials: diethyl ether.
	99% D2O Sample	Easily soluble in the following materials: cold water and hot water.
	0.2% v/v H2O in D2O Microflow sample	Easily soluble in the following materials: cold water and hot water.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Easily soluble in the following materials: cold water and hot water.
	10 mM 13C Enriched Sodium Acetate	Easily soluble in the following materials: cold water and hot water.
Solubility in water	: Not available.	
Partition coefficient: n-octanol/water	: Sucrose Sample Purchase SPEC	-3.7
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Auto-ignition temperature	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.
Decomposition temperature	: Sucrose Sample Purchase SPEC	186°C (366.8°F)
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.

Section 9. Physical and chemical properties

Viscosity	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: Sucrose Sample Purchase SPEC	No specific test data related to reactivity available for this product or its ingredients.
	99% D2O Sample	No specific test data related to reactivity available for this product or its ingredients.
	0.2% v/v H2O in D2O Microflow sample	No specific test data related to reactivity available for this product or its ingredients.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No specific test data related to reactivity available for this product or its ingredients.
	10 mM 13C Enriched Sodium Acetate	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Sucrose Sample Purchase SPEC	The product is stable.
	99% D2O Sample	The product is stable.
	0.2% v/v H2O in D2O Microflow sample	The product is stable.
	50mM, 1% H2O/D2O Sodium Acetate Solution	The product is stable.
	10 mM 13C Enriched Sodium Acetate	The product is stable.
10.3 Possibility of hazardous reactions	: Sucrose Sample Purchase SPEC	Under normal conditions of storage and use, hazardous reactions will not occur.
	99% D2O Sample	Under normal conditions of storage and use, hazardous reactions will not occur.
	0.2% v/v H2O in D2O Microflow sample	Under normal conditions of storage and use, hazardous reactions will not occur.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
	10 mM 13C Enriched Sodium Acetate	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Sucrose Sample Purchase SPEC	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). 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. Prevent dust accumulation.
	99% D2O Sample	No specific data.
	0.2% v/v H2O in D2O Microflow sample	No specific data.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No specific data.
	10 mM 13C Enriched Sodium Acetate	No specific data.

Section 10. Stability and reactivity

10.5 Incompatible materials	: Sucrose Sample Purchase SPEC	Reactive or incompatible with the following materials: oxidizing materials No specific data. No specific data. No specific data. No specific data.
	99% D2O Sample	
	0.2% v/v H2O in D2O Microflow sample	
	50mM, 1% H2O/D2O Sodium Acetate Solution	
	10 mM 13C Enriched Sodium Acetate	
10.6 Hazardous decomposition products	: Sucrose Sample Purchase SPEC	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	99% D2O Sample	
	0.2% v/v H2O in D2O Microflow sample	
	50mM, 1% H2O/D2O Sodium Acetate Solution	
	10 mM 13C Enriched Sodium Acetate	

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sucrose Sample Purchase SPEC Sucrose	LD50 Oral	Rat	29700 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Sucrose Sample Purchase SPEC Sucrose	Category 2	Oral	gastrointestinal tract

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact	: Sucrose Sample Purchase SPEC	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Inhalation	: Sucrose Sample Purchase SPEC	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Skin contact	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Ingestion	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	: Sucrose Sample Purchase SPEC	Adverse symptoms may include the following: irritation redness
	99% D2O Sample	No specific data.
	0.2% v/v H2O in D2O Microflow sample	No specific data.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No specific data.
	10 mM 13C Enriched Sodium Acetate	No specific data.
Inhalation	: Sucrose Sample Purchase SPEC	Adverse symptoms may include the following: respiratory tract irritation coughing
	99% D2O Sample	No specific data.
	0.2% v/v H2O in D2O Microflow sample	No specific data.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No specific data.
	10 mM 13C Enriched Sodium Acetate	No specific data.
Skin contact	: Sucrose Sample Purchase SPEC	No specific data.
	99% D2O Sample	No specific data.
	0.2% v/v H2O in D2O Microflow sample	No specific data.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No specific data.
	10 mM 13C Enriched Sodium Acetate	No specific data.
Ingestion	: Sucrose Sample Purchase SPEC	No specific data.
	99% D2O Sample	No specific data.
	0.2% v/v H2O in D2O Microflow sample	No specific data.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No specific data.
	10 mM 13C Enriched Sodium Acetate	No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Section 11. Toxicological information

General	: Sucrose Sample Purchase SPEC	May cause damage to organs through prolonged or repeated exposure if swallowed. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Carcinogenicity	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Mutagenicity	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Teratogenicity	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Developmental effects	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.
Fertility effects	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 11. Toxicological information

Other information	: Sucrose Sample Purchase SPEC	Not available.
	99% D2O Sample	Not available.
	0.2% v/v H2O in D2O Microflow sample	Not available.
	50mM, 1% H2O/D2O Sodium Acetate Solution	Not available.
	10 mM 13C Enriched Sodium Acetate	Not available.

Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Sucrose Sample Purchase SPEC Sucrose	-3.7	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

12.5 Other adverse effects	: Sucrose Sample Purchase SPEC	No known significant effects or critical hazards.
	99% D2O Sample	No known significant effects or critical hazards.
	0.2% v/v H2O in D2O Microflow sample	No known significant effects or critical hazards.
	50mM, 1% H2O/D2O Sodium Acetate Solution	No known significant effects or critical hazards.
	10 mM 13C Enriched Sodium Acetate	No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

This Material Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

Regulatory information

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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

U.S. Federal regulations : United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Sucrose Sample Purchase SPEC Sucrose	60 - 100	Yes.	No.	No.	No.	Yes.

State regulations

Massachusetts : The following components are listed: SUCROSE DUST

Section 15. Regulatory information

New York	: None of the components are listed.
New Jersey	: None of the components are listed.
Pennsylvania	: The following components are listed: .ALPHA.-D-GLUCOPYRANOSIDE, .BETA.-D-FRUCTOFURANOSYL
<u>California Prop. 65</u>	
No products were found.	
Canada inventory	: All components are listed or exempted.
<u>International regulations</u>	
International lists	: Australia inventory (AICS) : All components are listed or exempted. China inventory (IECSC) : All components are listed or exempted. Japan inventory : All components are listed or exempted. Korea inventory : All components are listed or exempted. Malaysia Inventory (EHS Register) : Not determined. New Zealand Inventory of Chemicals (NZIoC) : All components are listed or exempted. Philippines inventory (PICCS) : All components are listed or exempted. Taiwan inventory (CSNN) : Not determined.
Chemical Weapons Convention List Schedule I Chemicals	: Not listed
Chemical Weapons Convention List Schedule II Chemicals	: Not listed
Chemical Weapons Convention List Schedule III Chemicals	: Not listed

Section 16. Other information

History

Date of issue	: 12/19/2013.
Date of previous issue	: 12/16/2011.
Version	: 2

✔ Indicates information that has changed from previously issued version.

Notice to reader

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.