SAFETY DATA SHEET

Section 1: Identification

Product Identifier: Fatty Acid Oxidation Assay (BR00001)
Relevant Identified Uses of Substance or Mixture and Uses Advised Against:
Recommended Use: For Research Use Only
Uses Advised against: No information

Company:
Assay Genie
25 Windsor Place
D02VY42
Dublin 2
Ireland
+353 (01) 8879802

For information about this SDS, please contact: techsupport@assaygenie.com

Section 2: Hazard(s) Identification

2.1. Hazard Classification

Dimethyl sulfoxide (DMSO)

OSHA Hazards
Combustible Liquid, Target Organ Effect

GHS Classification
Flammable liquids (Category 4)

Signal Word(s):
WARNING

Hazard Statements:
H227: Combustible liquid

Pictograms:
None

Precautionary Statements:
None

HMIS Classification
Health hazard: 0
Chronic Health Hazard: *
Flammability: 2
Physical hazards: 0

NFPA Rating
Health hazard: 0
Fire: 2
Reactivity Hazard: 0

Potential Health Effects
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed. Aggravated Medical
Condition: Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.

Tris (hydroxymethyl) aminomethane

OSHA Hazards
Irritant

GHS Classification
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)

Signal Word(s):
WARNING

Hazard Statements:
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Pictograms:

Precautionary Statements:
P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338: IF IN EYES - Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification
Health hazard: 2
Chronic Health Hazard: 0
Flammability: 0
Physical hazards: 2

NFPA Rating
Health hazard: 2
Fire: 2
Reactivity Hazard: 0

Potential Health Effects
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

Iodonitrotetrazolium chloride (INT)

OSHA Hazards
No known OSHA hazards

HMIS Classification
Health hazard: 0
Flammability: 0
Physical hazards: 0

NFPA Rating
Health hazard: 0
Fire:0
Reactivity Hazard: 0

Potential Health Effects
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

Section 3: Composition/ Information on Ingredients

The substances detailed below are included in this mixture:

Chemical Name	CAS#	EC#
Dimethyl sulfoxide (DMSO)	67-68-5	200-664-3
Tris (hydroxymethyl) aminomethane	77-86-1	201-064-4
Iodonitrotetrazolium chloride (INT)	146-68-9	205-676-2

Section 4: First-Aid Measures

4.1. General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

4.1. Skin contact
Wash off with soap and plenty of water. Consult a physician.

4.2. Eye contact
In case of eye contact. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

4.3. Inhalation
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

4.5. Swallowing/Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5: Fire-Fighting Measures

5.1. Suitable extinguishing agents
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.3. Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx).

5.4. Further information
Use water spray to cool unopened containers.

Section 6: Accidental Release Measures

6.1. Personal precautions
Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2. Measures for environmental protection
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3. Measures for cleaning/collecting
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

7.1. Advice Handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2. Storage conditions
Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C.

Section 8: Exposure Controls/Personal Protection

8.1. General protective and hygienic measures
General industrial hygiene practice.

8.2. Breathing equipment
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.3. Protection of hands
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

8.4. Eye protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Section 9: Physical and Chemical Properties

9.1. Information about the physical and chemical properties of the product

Dimethyl sulfoxide (DMSO)

- **Form:** Liquid, clear (colourless)
- **Odor:** No data available
- **Odor threshold:** No data available
- **pH:** No data available
- **Melting point/melting range:** 16 - 19 °C (61 - 66 °F)
- **Boiling point/boiling range:** 189 °C (372 °F)
- **Flash point:** 87 °C (189 °F) - closed cup
- **Evaporation rate:** No data available
- **Flammability:** No data available
- **Upper/lower flammability or explosive limits:** 42 %(V) / 3.5 %(V)
- **Auto ignition temperature:** No data available
- **Danger of explosion:** No data available
- **Vapor pressure:** 0.55 hPa (0.41 mmHg) at 20 °C (68 °F)
- **Partition coefficient:** n-octanol/water log Pow: -2.03
- **Relative density:** 2.70- (Air = 1.0)
- **Density:** 1.1 g/mL
- **Solubility in/Miscibility with water:** Completely miscible

Iodonitrotetrazolium chloride (INT)

- **Form:** Liquid
- **Odor:** No data available
- **Odor threshold:** No data available
- **pH:** No data available
- **Melting point/melting range:** 240 °C (464 °F) - dec.
- **Boiling point/boiling range:** No data available
- **Flash point:** No data available
- **Evaporation rate:** No data available
- **Flammability:** No data available
- **Upper/lower flammability or explosive limits:** No data available
- **Auto ignition temperature:** No data available
- **Danger of explosion:** No data available
- **Vapor pressure:** No data available
- **Partition coefficient:** No data available
- **Relative density:** No data available

- **Density:** No data available
- **Solubility in/Miscibility with water:** No data available

Tris (hydroxymethyl) aminomethane

- **Form:** Liquid
- **Odor:** No data available
- **Odor threshold:** No data available
- **pH:** No data available
- **Melting point/melting range:** 167 - 172 °C (333 - 342 °F)
- **Boiling point/boiling range:** 219 - 220 °C (426 - 428 °F) at 13 hPa (10 mmHg)
- **Flash point:** No data available
- **Evaporation rate:** No data available
- **Flammability:** No data available
- **Upper/lower flammability or explosive limits:** No data available
- **Auto ignition temperature:** No data available
- **Danger of explosion:** No data available
- **Vapor pressure:** No data available
- **Partition coefficient:** No data available
- **Relative density:** No data available
- **Density:** No data available
- **Solubility in/Miscibility with water:** No data available

Section 10: Stability and Reactivity

10.1. Information about the stability and reactivity

- **Chemical stability**: Stable under recommended storage conditions.
- **Possibility of hazardous reactions**: No data available.
- **Conditions to avoid:** Hygroscopic.
- **Materials to avoid:** Strong oxidizing agents.
- **Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

Section 11: Toxicological Information

11.1. Acute toxicity

- **Skin:** No data available
- **Eye:** No data available
- **Inhalation:** No data available
- **Ingestion:** No data available

11.2. Chronic effects

- **Carcinogenic effects:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **Mutagenic effects:** No data available.

- **Reproductive toxicity:** No data available.
- **Sensitization:** No data available.
- **Target organs:** No data available.

11.3. Potential health effects

- **Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion** May be harmful if swallowed.
- **Skin** May be harmful if absorbed through skin. May cause skin irritation.
- **Eyes** May cause eye irritation.

11.4. Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

Section 12: Ecological Information

12.1. Ecotoxicity

No data available.

12.2. Mobility

No data available.

12.3. Biodegradation

No data available.

12.4. Bioaccumulation

No data available.

Section 13: Disposal Considerations

13.1. Waste disposal methods

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Section 14: Transport Information

- **DOT (US):** Not dangerous goods
- **IMDG:** Not dangerous goods
- **IATA:** Not dangerous goods

Section 15: Regulatory Information

15.1. OSHA Hazards

- **DMSO:** Combustible Liquid, Target Organ Effect
- **Tris:** Irritant
- **INT:** No known OSHA hazards

15.2. SARA 302 Components

- **DMSO:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- **Tris:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- **INT:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

15.3. SARA 313 Components

- **DMSO:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- **Tris:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- **INT:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

15.4. SARA 311/312 Hazards

- **DMSO:** Fire Hazard, Chronic Health Hazard
- **Tris:** Acute Health Hazard
- **INT:** No SARA Hazards

Section 16: Other Information

This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guild only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislation. The absence of warning must not, under and circumstance be taken to mean that no hazard exists.

Last reviewed: 07/2025

Disclaimer

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.

End Of MSDS