

Material Safety Data Sheet

Product Name: Colorimetric TBARS (2-Thiobarbituric Acid Reactive Substances) Assay Kit
Product Number: FR45

Manufacturer:

Oxford Biomedical Research
2165 Avon Industrial Dr.
Rochester Hills, MI 48309
(248) 852-8815

Components:

<u>Description</u>	<u>Quantity</u>
2-Thiobarbituric Acid	2.0 Grams
10% Acid in Dimethylsulfoxide	40.0 mL
10 mM Malonaldehyde Tetrabutylammonium	0.100 mL

The components listed above are provided and produced by Oxford Biomedical Research as components of an *in vitro* diagnostic test kit for the sole purpose of research use and to be used in accordance with the kit instruction.

2-Thiobarbituric acid

Hazards

OSHA Hazards

No known OSHA Hazards.

Special Hazard Considerations:

Stench.

Ingestion: May be harmful if swallowed.

Skin Contact: May cause skin irritation.

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Eye Contact: May cause eye irritation.

Composition

Formula: $C_4H_4N_2O_2S$
Molecular Weight: 144.15 g/mol
CAS-No.: 207-985-8

Fire Fighting Measures

The components and materials provided in this kit pose no significant risk in the event of fire. Extinguishing media should be used that is most appropriate to the surrounding areas. It is recommended that firefighters wear protective gear and self-contained breathing apparatus to minimize exposure. Kit components emit toxic fumes under fire conditions.

Accidental Release Measures

Shut off all ignition sources and ventilate the area. Wear appropriate protective gear. Wipe or pick-up materials, place in a sealed container, and dispose of in accordance with Federal, State and Local Government regulations. Wash the spill site thoroughly with soap and water.

Handling and Storage

Store kit as recommended on the product label or each individual component. All components and its contents should be stored in closed containers. This product should be only handled by qualified, trained professionals.

Personal Protection

Respiratory protection:

Respiratory protection is not required.

Hand protection:

Handle with gloves.

Eye protection:

Use eye protection.

Stability and Reactivity

Chemical stability:

Stable under recommended storage conditions. Avoid strong oxidizing agents.

Toxicological Information

Acute toxicity:

LD50 Oral-rat > 5,000 mg/kg

Carcinogenicity:

This product is not identified as a carcinogen.

Ecological Information

Toxicity:

No data available.

Transportation Information:

UN-Number: 3335 Class 9

Not dangerous goods.

Acidified Dimethylsulfoxide (DMSO)

Hazards

OSHA Hazards

Combustible Liquid, Target organ effect

Target organs:

Eyes and skin. Avoid skin contact with DMSO containing toxic material or heavy metals. DMSO is readily absorbed through skin and may carry dissolved materials into the body.

Ingestion: May be harmful if swallowed.

Skin Contact: Avoid skin contact with DMSO containing toxic material or heavy metals. DMSO is readily absorbed through skin and may carry dissolved materials into the body.

Eye Contact: May cause eye irritation.

Composition

Formula: C_2H_6OS
Molecular Weight: 78.13 g/mol
CAS-No.: 67-68-5

First Aid Measures

In case of skin contact, wash with soap and water. In case of eye contact, flush with water. In case of ingestion, contact a physician.

Fire Fighting Measures

This component is flammable. Extinguishing media should be used that is most appropriate to the surrounding areas. It is recommended that firefighters wear protective gear and self-contained breathing apparatus to minimize exposure. Kit components emit toxic fumes under fire conditions.

Accidental Release Measures

Shut off all ignition sources and ventilate the area. Wear appropriate protective gear. Wipe or pick-up materials, place in a sealed container, and dispose of in accordance with Federal, State and Local Government regulations. Wash the spill site thoroughly with soap and water.

Handling and Storage

Environmental precautions:

Do not let product enter drains.

Further information:

This product should be only handled by qualified, trained professionals.

Do not expose to sources of ignition.

Personal Protection

Hand protection:

Handle with gloves.

Eye protection:

Use eye protection.

Stability and Reactivity

Chemical stability:

Stable under recommended storage conditions. Avoid ignition sources.

Toxicological Information

Acute toxicity:

LD50 Oral-rat > 14,500 mg/kg

Carcinogenicity:

No component of this kit is considered carcinogenic at greater than 0.1% as identified by OSHA.

Ecological Information

Toxicity:

Fish LC50 34,000 mg/L

Transportation Information:

NA-Number: 1993 Class CBL

Not dangerous goods.

Malondialdehyde tetrabutylammonium salt

Hazards

OSHA Hazards

Corrosive

Special Hazard Considerations:

Skin corrosion (Category 1B)

Serious eye damage (Category 1)

Ingestion: May be harmful if swallowed.

Skin Contact: May be harmful if absorbed through skin. Causes skin burns.

Inhalation: May be harmful if inhaled. Material is destructive to mucus membranes and upper airway tract.

Eye Contact: Causes eye burns.

Composition

Formula: $C_{19}H_{39}NO_2$
Molecular Weight: 315.52 g/mol
CAS-No.: 100683-54-3

Fire Fighting Measures

The material produces carbon oxides and nitrogen oxides under fire conditions.

Accidental Release Measures

Environmental precautions:

Do not dispose by drain.

Handling and Storage

Store kit as recommended on the product label or each individual component. All components and its contents should be stored in closed containers. This product should be only handled by qualified, trained professionals.

Personal Protection

Hand protection:

Handle with gloves.

Eye protection:

Use eye protection.

Stability and Reactivity

Chemical stability:

Stable under recommended storage conditions. Avoid strong oxidizing agents.

Toxicological Information

Acute toxicity:

No data available

Carcinogenicity:

No data available

Ecological Information

Toxicity:

No data available.

Transportation Information:

UN-Number: 3263 Class 8

Not dangerous goods.

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