# KIT SAFETY DATA SHEET



**Kit Product Name** 

VivaFix Cell Viability Assay 1351111, 1351112, 1351113, 1351114, 1351115, 1351116, 1351117, 1351118, Kit Catalogue Number(s)

1351111EDU, 1351115EDU, 1351116EDU, 1351117EDU

**Revision date** 30-Aug-2023

# **Kit Contents**

Catalogue Number(s)	Product Name
10041657, 10041651, 10041652, 10041653, 10041654, 10041655,	DMSO
10041656	
10033056, 10033096, 10033098, 10033100, 10033102, 10033104,	Labeling Dye
10033106, 10033348, 10033349, 10041658, 10041659, 10041660,	
10041661, 10041662, 10041663, 10041664, 10041665	

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# SAFETY DATA SHEET

**Legal Entity / Contact Address** 

239/2, Rajdamri Road, Lumpini, Pathumwan, Bangkok 10330

Thailand

1st and 2nd Floor, Lumpini 1 Building

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name DMSO Revision date 30-Aug-2023 **Revision Number** 1

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product identifier** 

**Product Name DMSO** 

10041657, 10041651, 10041652, 10041653, 10041654, 10041655, 10041656 Catalogue Number(s)

**English chemical name** Dimethyl sulfoxide

Other means of identification

**CAS No** 67-68-5

Pure substance/mixture Substance

Details of the supplier of the safety data sheet

**Corporate Headquarters** <u>Manufacturer</u> Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd. Bio-Rad Laboratories Inc.

1000 Alfred Nobel Drive 2000 Alfred Nobel Drive Hercules, CA 94547 Hercules, California 94547

USA USA

**Technical Service** +66 2 652 8313

ctsthailand@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

### SECTION 2: Hazards identification

# Emergency Overview

No significant adverse health effects

Physical state Liquid **Odour** Odourless **Appearance** Clear

Classification of the substance or mixture

Not classified

Label elements

**Hazard statements** 

Not classified

Product Name DMSO Revision date 30-Aug-2023

#### Physical and chemical hazards

Not applicable.

**Health hazards** 

Immediate Health Effects: Not applicable.

Chronic effects: Not applicable.

#### **Environmental hazards**

Not applicable

#### Other hazards which do not result in classification

Not applicable

# **SECTION 3: Composition/information on ingredients**

**Substance** 

CAS No 67-68-5

Not classified.

Chemical name	Weight-%	CAS No
Dimethyl sulfoxide	50 - 100	67-68-5

# **SECTION 4: First aid measures**

### **Description of necessary first aid measures**

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a doctor.

**Skin contact** Wash skin with soap and water.

**Ingestion** Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

No information available.

For emergency responders No information available.

Note to doctors Treat symptomatically.

# **SECTION 5: Firefighting measures**

#### **Extinguishing media**

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the

No information available.

chemical

Special protective actions for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

# **SECTION 6: Accidental release measures**

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

For emergency responders

Use personal protection recommended in Section 8.

**Environmental precautions** See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled

containers.

Precautions to prevent secondary

hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

# SECTION 7: Handling and storage

<u>Precautions for safe handling</u> Handle in accordance with good industrial hygiene and safety practice. See Section 8 for

information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Store according to product and label instructions.

**Incompatible materials**None known based on information supplied.

# **SECTION 8: Exposure controls/personal protection**

#### Occupational exposure limits

Chemical name	China	ACGIH TLV
Dimethyl sulfoxide - 67-68-5	TWA: 160 mg/m <sup>3</sup>	No data available
	Skin*	

Note See section 16 for terms and abbreviations

### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

# **Monitoring and observation processes**

No applicable information was found.

Engineering controls Showers

Eyewash stations Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection**Wear suitable protective clothing.

**Hand protection** Wear suitable gloves.

exceeded or irritation is experienced, ventilation and evacuation may be required.

None known

None known

None known

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

# SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance Clear
Colour colourless
Physical state Liquid
Odour Odourless

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

**pH** 7

Melting point / freezing point 18.44 °C
Boiling point / boiling range 189 °C
Flash point 95 °C

Evaporation rateNo data availableNone knownFlammability (solid, gas)No data availableNone knownFlammability Limit in AirNone known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableVapour densityNo data availableRelative densityNo data availableWater solubilityMiscible in water

Solubility(ies) No data available None known **Partition coefficient** No data available None known **Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known Dynamic viscosity No data available None known

Additional information

Explosive properties Not applicable Oxidising properties Not applicable

# SECTION 10: Stability and reactivity

<u>Stability</u> Stable under normal conditions.

**Possibility of hazardous reactions** None under normal processing.

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

<u>Conditions to avoid</u> None known based on information supplied.

<u>Incompatible materials</u> None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

# SECTION 11: Toxicological information

Acute toxicity

#### Numerical measures of toxicity

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyl sulfoxide	= 28300 mg/kg (Rat)	= 40000 mg/kg (Rat)	> 5.33 mg/L (Rat)4 h

**Skin corrosion/irritation**Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity —

single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity —

repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

# **SECTION 12: Ecological information**

### **Ecotoxicity**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Dimethyl sulfoxide	-	LC50: =34000mg/L (96h,	-
		Pimephales promelas)	
		LC50: 33 - 37g/L (96h,	
		Oncorhynchus mykiss)	
		LC50: >40g/L (96h, Lepomis	
		macrochirus)	
		LC50: =41.7g/L (96h, Cyprinus	
		carpio)	

<u>Persistence and degradability</u> No information available.

Bioaccumulative potential There is no data for this product.

**Component Information** 

Chemical name	Partition coefficient
Dimethyl sulfoxide	-1.35

Mobility in soil No information available.

# **SECTION 13: Disposal considerations**

<u>Waste chemicals</u> Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Product Name DMSO Revision date 30-Aug-2023

<u>Contaminated packaging</u> Do not reuse empty containers.

# **SECTION 14: Transport information**

IMDG Not regulated

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

IATA Not regulated

<u>China</u> Not regulated

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

# SECTION 15: Regulatory information

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

#### **National regulations**

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors:

Catalogue of occupational diseases:

Listed. Chemical hazards.

Listed. Occupational poisoning.

Chemical name	Category	
Dimethyl sulfoxide	Chemical hazards	

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals Not applicable.

GB 18218-2009 Identification of major hazard installations for dangerous chemicals

Not applicable

List of hazardous chemicals under priority management Not applicable

Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods

Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China Not applicable

Measures for the Environmental Management of New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances Contact supplier for inventory compliance status.

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

# **SECTION 16: Other information**

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 30-Aug-2023

Product Name DMSO Revision date 30-Aug-2023

#### **Revision Note** Significant changes throughout SDS. Review all sections.

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

C Carcinogen

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### **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 Safety Data Sheet** 



# SAFETY DATA SHEET

Legal Entity / Contact Address

239/2, Rajdamri Road, Lumpini,

Pathumwan, Bangkok 10330

Thailand

1st and 2nd Floor, Lumpini 1 Building

This safety data sheet was created pursuant to the requirements of: GB/T 16483-2008, GB/T 17519-2013

Product Name Labeling Dye Revision date 30-Aug-2023 **Revision Number 1** 

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product identifier** 

**Product Name** Labeling Dye

10033056, 10033096, 10033098, 10033100, 10033102, 10033104, 10033106, 10033348, Catalogue Number(s)

10033349, 10041658, 10041659, 10041660, 10041661, 10041662, 10041663, 10041664,

10041665

**English chemical name** Dye

Other means of identification

Pure substance/mixture Mixture

Details of the supplier of the safety data sheet

**Corporate Headquarters** Manufacturer Bio-Rad Laboratories, Life Science Group Bio-Rad Laboratories Ltd. Bio-Rad Laboratories Inc.

2000 Alfred Nobel Drive 1000 Alfred Nobel Drive Hercules, California 94547 Hercules, CA 94547

USA USA

+66 2 652 8313 **Technical Service** 

ctsthailand@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Hong Kong: 800-968-793

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

### SECTION 2: Hazards identification

### **Emergency Overview**

No significant adverse health effects

**Odour** Odourless Appearance solid Physical state Solid

Classification of the substance or mixture

Not classified

Label elements

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#### **Hazard statements**

Not classified

#### Physical and chemical hazards

Not applicable.

### **Health hazards**

Immediate Health Effects: Not applicable.

Chronic effects: Not applicable.

#### **Environmental hazards**

Not applicable

#### Other hazards which do not result in classification

Not applicable

# SECTION 3: Composition/information on ingredients

#### **Substance**

Not applicable.

#### Mixture

Not classified.

Chemical name	Weight-%	CAS No
Dye	50 - 100	NO-CAS-83

# **SECTION 4: First aid measures**

### **Description of necessary first aid measures**

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a doctor.

**Skin contact** Wash skin with soap and water.

**Ingestion** Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

No information available.

For emergency responders No information available.

Note to doctors Treat symptomatically.

# **SECTION 5: Firefighting measures**

#### **Extinguishing media**

surrounding environment.

Revision date 30-Aug-2023

**Unsuitable extinguishing media** No information available.

Specific hazards arising from the

chemical

No information available.

Special protective actions for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

# SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

For emergency responders

Use personal protection recommended in Section 8.

**Environmental precautions** See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled

containers.

Precautions to prevent secondary

hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

# SECTION 7: Handling and storage

<u>Precautions for safe handling</u> Handle in accordance with good industrial hygiene and safety practice. See Section 8 for

information on appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Store according to product and label instructions.

**Incompatible materials**None known based on information supplied.

# SECTION 8: Exposure controls/personal protection

### Occupational exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Note** See section 16 for terms and abbreviations

#### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Monitoring and observation processes

No applicable information was found.

Engineering controls Showers

Eyewash stations Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection**Wear suitable protective clothing.

**Hand protection** Wear suitable gloves.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

# SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance solid
Colour Varies
Physical state Solid
Odour Odourless

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH 7

No data available Melting point / freezing point None known Boiling point / boiling range No data available None known Flash point No data available None known **Evaporation rate** No data available None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility Insoluble in water

Solubility(ies) No data available None known Partition coefficient No data available None known Autoignition temperature No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known

Additional information

Explosive properties Not applicable Oxidising properties Not applicable

# SECTION 10: Stability and reactivity

<u>Stability</u> Stable under normal conditions.

<u>Possibility of hazardous reactions</u> None under normal processing.

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

<u>Conditions to avoid</u> None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

### SECTION 11: Toxicological information

Product Name Labeling Dye Revision date 30-Aug-2023

### Acute toxicity

#### Numerical measures of toxicity

No information available

**Skin corrosion/irritation**Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity**Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity —

single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity —

repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

# SECTION 12: Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

# **SECTION 13: Disposal considerations**

<u>Waste chemicals</u> Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

<u>Contaminated packaging</u> Do not reuse empty containers.

# **SECTION 14: Transport information**

<u>IMDG</u> Not regulated

Transport in bulk according to No information available

Annex II of MARPOL and the IBC

Code

<u>IATA</u> Not regulated

China Not regulated

#### Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

# SECTION 15: Regulatory information

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

#### **National regulations**

#### Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Catalogue of occupational hazard factors:

Catalogue of occupational diseases:

Not applicable.

Not applicable.

Regulations on the Control over Safety of Hazardous Chemicals

Inventory of hazardous chemicals

Not applicable.

GB 18218-2009 Identification of major hazard installations for dangerous chemicals Not applicable

List of hazardous chemicals under priority management Not applicable

Regulations on Labour Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods

Not applicable

Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

List of toxic chemicals severely restricted for import and export in China Not applicable

Measures for the Environmental Management of New Chemical Substances

**IECSC - China Inventory of Existing Chemical Substances**Contact supplier for inventory compliance status.

**International Regulations** 

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

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# **SECTION 16: Other information**

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 30-Aug-2023

**Revision Note** Significant changes throughout SDS. Review all sections.

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

C Carcinogen

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**End of Safety Data Sheet**