

# SAFETY DATA SHEET

## Invivoscribe® Gel Assays

Catalog Number	Description
11000010	<i>IGH + IGK</i> B-Cell Clonality Assay for Gel Detection
11010020	<i>IGH</i> Gene Clonality Assay for Gel Detection
11020020	<i>IGK</i> Gene Clonality Assay for Gel Detection
11030010	<i>IGL</i> Gene Clonality Assay for Gel Detection
12050010	<i>TCRB</i> Gene Clonality Assay for Gel Detection
12050020	<i>TCRB</i> Gene Clonality Assay MegaKit for Gel Detection
12060010	<i>TCRD</i> Gene Clonality Assay for Gel Detection
13080010	<i>BCL1/JH</i> Translocation Assay for Gel Detection
13080020	<i>BCL1/JH</i> Translocation Assay MegaKit for Gel Detection
13090010	<i>BCL2/JH</i> t(14;18) Translocation Assay for Gel Detection
13090020	<i>BCL2/JH</i> Translocation Assay for Gel Detection
13090040	<i>BCL2/JH</i> Translocation Assay MegaKit for Gel Detection
13100010	<i>BCR/ABL</i> t(9;22) Translocation Assay for Gel Detection
14120010	<i>FLT3</i> Mutation Assay for Gel Detection
51010030	<i>IGH</i> Somatic Hypermutation Assay v2.0 - Gel Detection
51010040	<i>IGH</i> Somatic Hypermutation Assay MegaKit v2.0 - Gel Detection

Issuing Date 27-Apr-2023

Revision Date 27-Apr-2023

Revision Number 1

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

### 1.1. Product identifier

Product Code(s)	Product Name	Synonyms
40880190	IVS-0004 Clonal Control DNA	None
40880370	IVS-0007 Clonal Control DNA	None
40880430	IVS-0008 Clonal Control DNA	None
40880490	IVS-0009 Clonal Control DNA	None
40880550	IVS-0010 Clonal Control DNA	None
40880730	IVS-0013 Clonal Control DNA	None
40880970	IVS-0017 Clonal Control DNA	None
40881090	IVS-0019 Clonal Control DNA	None
40881210	IVS-0021 Clonal Control DNA	None
40881390	IVS-0024 Clonal Control DNA	None
40881690	IVS-0029 Clonal Control DNA	None
40881750	IVS-0030 Clonal Control DNA	None
40881810	IVS-0031 Clonal Control DNA	None
40890190	IVS-0003 Clonal Control RNA	None
40890910	IVS-0011 Clonal Control RNA	None
40892800	IVS-0032 Clonal Control RNA	None
40893070	IVS-0035 Clonal Control RNA	None
40900010	IVS-P001 Clonal Control DNA	None
40900070	IVS-P002 Clonal Control DNA	None
40920010	IVS-0000 Polyclonal Control DNA	None

Pure substance/mixture      Mixture

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

Recommended use      Assay reagent  
Uses advised against      For professional use only

### 1.3. Details of the supplier of the safety data sheet

**Importer**

Invivoscribe Technologies  
Zeppelinstrasse 1  
85399 Hallbergmoos  
Germany  
Phone: +49 89 904 299 800

**Supplier**

Invivoscribe, Inc.  
10222 Barnes Canyon Rd  
Bldg. 1  
San Diego, CA 92121  
Phone: +1 858-224-6600

**Distributor**

Invivoscribe Technologies, SARL  
c/o Ficorec Domiciliation Services  
132, Boulevard Michelet  
Hall Nord – 5ème étage  
13008 Marseille  
FRANCE  
Tel: +33 (0)4 42 01 78 10

**For further information, please contact**

E-mail address      customerservice@invivoscribe.com

### 1.4. Emergency telephone number

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

Emergency telephone +49 89 904 299 800 (M-F 8:00 – 16:30 CET)

Emergency telephone - §45 - (EC)1272/2008

Europe 112

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

*Classification according to Regulation (EC) No. 1272/2008 [CLP]*

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

**2.2. Label elements****Hazard statements**

Not classified.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

**2.3. Other hazards**

No information available.

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

The product contains no substances which at their given concentration, are considered to be hazardous to health.

**Full text of H- and EUH-phrases: see section 16**

**Acute Toxicity Estimate**

*If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE<sub>mix</sub>) for classifying a mixture based on its components*

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

**SECTION 4: First aid measures****4.1. Description of first aid measures**

**Inhalation** Remove to fresh air. Get medical attention if symptoms occur.  
**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.  
**Skin contact** Wash skin with soap and water. Get medical attention if symptoms occur.  
**Ingestion** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Get medical attention if symptoms occur.

**4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms** None known.  
**Effects of Exposure** No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

No information available.

**5.2. Special hazards arising from the substance or mixture****Specific hazards arising from the chemical**

No information available.

**5.3. Advice for firefighters****Special protective equipment and precautions for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Ensure adequate ventilation.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions****Environmental precautions**

See Section 12 for additional Ecological Information.

**6.3. Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Dam up. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections****Reference to other sections**

See section 8 for more information See section 13 for more information

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.

**Storage class (TRGS 510)**

Storage class 10.

**7.3. Specific end use(s)****Specific use(s)**

The identified uses for this product are detailed in Section 1.2.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure Limits**

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

## SECTION 8: Exposure controls/personal protection

### Biological occupational exposure limits

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

Derived No Effect Level (DNEL) - Workers	No information available.
Derived No Effect Level (DNEL) - General Public	No information available.
Predicted No Effect Concentration (PNEC)	No information available.

### 8.2. Exposure controls

Engineering controls	Showers
	Eyewash stations
	Ventilation systems.

### Personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.
Hand protection	Wear suitable gloves. Gloves must conform to standard EN 374.
Skin and body protection	Wear suitable protective clothing. (EN ISO 6529).
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.
Environmental exposure controls	No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Color	Colorless
Odor	Odorless
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flammability		No data available
Flammability Limit in Air		No data available
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Vapor pressure		No data available
Relative density		No data available
Bulk density		No data available
Liquid density		No data available

**SECTION 9: Physical and chemical properties**

Relative vapor density	No data available
Particle characteristics	No data available
Particle size	No data available
Particle size distribution	No data available

**9.2. Other information**

- 9.2.1. Information with regard to physical hazard classes**  
Not applicable
- 9.2.2. Other safety characteristics**  
No information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reactivity None under normal use conditions.

**10.2. Chemical stability**

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions None under normal processing.

**10.4. Conditions to avoid**

Conditions to avoid None known based on information supplied.

**10.5. Incompatible materials**

Incompatible materials None known based on information supplied.

**10.6. Hazardous decomposition products**

Hazardous decomposition products None known based on information supplied.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Contact with eyes may cause irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

Symptoms None known.

**Acute toxicity****Numerical measures of toxicity**

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

**SECTION 11: Toxicological information****Component Information****Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
<b>Serious eye damage/eye irritation</b>	Based on available data, the classification criteria are not met.
<b>Respiratory or skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>STOT - single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**

<b>11.2.1. Endocrine disrupting properties</b>	
<b>Endocrine disrupting properties</b>	This product does not contain any known or suspected endocrine disruptors.
<b>11.2.2. Other information</b>	
<b>Other adverse effects</b>	No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

<b>Ecotoxicity</b>	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.
<b>Unknown aquatic toxicity</b>	Contains 0 % of components with unknown hazards to the aquatic environment.

**12.2. Persistence and degradability**

<b>Persistence and degradability</b>	No information available.
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**12.3. Bioaccumulative potential**

<b>Bioaccumulation</b>	No information available.
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**12.4. Mobility in soil**

<b>Mobility in soil</b>	No information available.
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**12.5. Results of PBT and vPvB assessment**

<b>PBT and vPvB assessment</b>	The product does not contain any substance(s) classified as PBT or vPvB.
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**12.6. Endocrine disrupting properties**

<b>Endocrine disrupting properties</b>	This product does not contain any known or suspected endocrine disruptors.
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**12.7. Other adverse effects**

<b>Other adverse effects</b>	No information available.
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**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**SECTION 13: Disposal considerations**

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.
<b>Waste codes / waste designations according to EWC / AVV</b>	According to the European Waste Catalog, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information**

<b>IMDG</b>	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available
<b>RID</b>	Not regulated
14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users Special Provisions	None
<b>ADR</b>	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users Special Provisions	None
<b>IATA</b>	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users Special Provisions	None
Note:	None

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**



**SECTION 15: Regulatory information**National regulations**Germany****Water hazard class (WGK)** non-hazardous to water (nwg)**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorizations and/or restrictions on use:**

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

International Inventories

Contact supplier for inventory compliance status

**15.2. Chemical safety assessment****Chemical Safety Report** No information available**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

ATE: Acute Toxicity Estimate

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

**Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
SCBA	Self-contained breathing apparatus		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	On basis of test data
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method

**SECTION 16: Other information**

STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

**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)  
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
 European Chemicals Agency (ECHA) (ECHA\_API)  
 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  
 Australia 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)  
 United States of America National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

**Issuing Date** 27-Apr-2023  
**Revision Date** 27-Apr-2023  
**Revision Note** Initial Release.

**This safety data sheet complies with the requirements of Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006**

**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.

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

### 1.1. Product identifier

Product Code(s)	Product Name	Synonyms
20960010	Amplification Control - Unlabeled for Gel Detection	None
20960020	Specimen Control Size Ladder - Unlabeled for Gel Detection	None
21010010	IGH Tube A - Unlabeled for Gel Detection	None
21010020	IGH Tube B - Unlabeled for Gel Detection	None
21010030	IGH Tube C - Unlabeled for Gel Detection	None
21010040	IGH Tube D - Unlabeled for Gel Detection	None
21010050	IGH Tube E - Unlabeled for Gel Detection	None
21010170	Hypermutation Mix 1 v2.0 - Unlabeled for Gel Detection	None
21010180	Hypermutation Mix 2 v2.0 Unlabeled for Gel Detection	None
21020010	IGK Tube A - Unlabeled for Gel Detection	None
21020020	IGK Tube B - Unlabeled for Gel Detection	None
21030010	IGL Tube - Unlabeled for Gel Detection	None
22050010	TCRB Tube A - Unlabeled for Gel Detection	None
22050020	TCRB Tube B - Unlabeled for Gel Detection	None
22050030	TCRB Tube C - Unlabeled for Gel Detection	None
22060010	TCRD Tube - Unlabeled for Gel Detection	None
23080010	BCL1/JH Tube - Unlabeled for Gel Detection	None
23090010	BCL2/JH t(14;18) (Mbr) Mix 1b - Unlabeled for Gel Detection	None
23090020	BCL2/JH t(14;18) (mcr) Mix 2b - Unlabeled for Gel Detection	None
23090030	BCL2/JH t(14;18) (Mbr) Mix 1a - Unlabeled for Gel Detection	None
23090040	BCL2/JH t(14;18) (mcr) Mix 2a - Unlabeled for Gel Detection	None
23090050	BCL2/JH Tube A - Unlabeled for Gel Detection	None
23090060	BCL2/JH Tube B - Unlabeled for Gel Detection	None
23090070	BCL2/JH Tube C - Unlabeled for Gel Detection	None
23100010	BCR/ABL t(9;22) Mix 1a - Unlabeled for Gel Detection	None
23100020	BCR/ABL t(9;22) Mix 2a - Unlabeled for Gel Detection	None
23100030	BCR/ABL t(9;22) Mix 3a - Unlabeled for Gel Detection	None
23100040	BCR/ABL t(9;22) Mix 1b - Unlabeled for Gel Detection	None
23100050	BCR/ABL t(9;22) Mix 2b - Unlabeled for Gel Detection	None
23100060	BCR/ABL t(9;22) Mix 2c - Unlabeled for Gel Detection	None
23100070	BCR/ABL t(9;22) Mix 3b - Unlabeled for Gel Detection	None
23100080	BCR/ABL t(9;22) Mix 3c - Unlabeled for Gel Detection	None
23100090	BCR/ABL t(9;22) Mix 3d - Unlabeled for Gel Detection	None
24120010	FLT3 ITD Master Mix for Gel Detection	None
24120020	FLT3 D835 Master Mix for Gel Detection	None
30000000	Primer Hypermutation 100 µM - Unlabeled	None
31010380	IGH JH Primer 100 µM - Unlabeled	None

Pure substance/mixture

Mixture

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

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

**Recommended use** Assay reagent  
**Uses advised against** For professional use only

**1.3. Details of the supplier of the safety data sheet****Importer**

Invivoscribe Technologies  
 Zeppelinstrasse 1  
 85399 Hallbergmoos  
 Germany  
 Phone: +49 89 904 299 800

**Supplier**

Invivoscribe, Inc.  
 10222 Barnes Canyon Rd  
 Bldg. 1  
 San Diego, CA 92121  
 Phone: +1 858-224-6600

**Distributor**

Invivoscribe Technologies, SARL  
 c/o Ficorec Domiciliation Services  
 132, Boulevard Michelet  
 Hall Nord – 5ème étage  
 13008 Marseille  
 FRANCE  
 Tel: +33 (0)4 42 01 78 10

**For further information, please contact**

**E-mail address** customerservice@invivoscribe.com

**1.4. Emergency telephone number**

**Emergency telephone** +49 89 904 299 800 (M-F 8:00 – 16:30 CET)

<b>Emergency telephone - §45 - (EC)1272/2008</b>
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<b>Europe</b>	<b>112</b>
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**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

**2.2. Label elements****Hazard statements**

Not classified.

**Unknown aquatic toxicity**

Contains 0 % of components with unknown hazards to the aquatic environment.

**2.3. Other hazards****Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Dimethyl sulfoxide 67-68-5	1-5	No data available	200-664-3	[C]	-	-	-

*Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes*

[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring

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

Full text of H- and EUH-phrases: see section 16

**Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE<sub>mix</sub>) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Dimethyl sulfoxide 67-68-5	28300	40000	5.3353	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Remove to fresh air. Get medical attention if symptoms occur.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash skin with soap and water. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Get medical attention if symptoms occur.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	None known.
<b>Effects of Exposure</b>	No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	No information available.

**5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards arising from the chemical</b>	No information available.
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**5.3. Advice for firefighters**

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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**SECTION 6: Accidental release measures****6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Dam up. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

<b>Reference to other sections</b>	See section 8 for more information See section 13 for more information
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**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

<b>Advice on safe handling</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Storage class (TRGS 510)</b>	Storage class 10.

**7.3. Specific end use(s)**

<b>Specific use(s)</b>	The identified uses for this product are detailed in Section 1.2.
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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure Limits**

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Dimethyl sulfoxide 67-68-5	-	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> H*	-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Dimethyl sulfoxide 67-68-5	-	-	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> STEL: 100 ppm STEL: 320 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 150 mg/m <sup>3</sup> STEL: 150 ppm STEL: 500 mg/m <sup>3</sup> A*	TWA: 50 ppm iho*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Dimethyl sulfoxide 67-68-5	-	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> H*	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> Peak: 100 ppm Peak: 320 mg/m <sup>3</sup> *	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Dimethyl sulfoxide 67-68-5	-	-	-	-	O* TWA: 50 ppm TWA: 150 mg/m <sup>3</sup> STEL: 150 ppm STEL: 500 mg/m <sup>3</sup>
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Dimethyl sulfoxide 67-68-5	-	-	-	TWA: 160 mg/m <sup>3</sup> TWA: 50 ppm	-

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

Chemical name	Sweden	Switzerland	United Kingdom
Dimethyl sulfoxide 67-68-5	NGV: 50 ppm NGV: 150 mg/m <sup>3</sup> Vägledande KGV: 150 ppm Vägledande KGV: 500 mg/m <sup>3</sup> H*	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> STEL: 100 ppm STEL: 320 mg/m <sup>3</sup> H*	-

**Biological occupational exposure limits**

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

**Derived No Effect Level (DNEL) - Workers**

Chemical name	Oral	Dermal	Inhalation
Dimethyl sulfoxide 67-68-5	-	200 mg/kg bw/day [4] [6]	484 mg/m <sup>3</sup> [4] [6] 265 mg/m <sup>3</sup> [5] [6]

**Notes**

- [4] Systemic health effects.  
[5] Local health effects.  
[6] Long term.  
[7] Short term.

**Derived No Effect Level (DNEL) - General Public**

Chemical name	Oral	Dermal	Inhalation
Dimethyl sulfoxide 67-68-5	60 mg/kg bw/day [4] [6]	-	120 mg/m <sup>3</sup> [4] [6] 47 mg/m <sup>3</sup> [5] [6]

**Notes**

- [4] Systemic health effects.  
[5] Local health effects.  
[6] Long term.  
[7] Short term.

**Predicted No Effect Concentration (PNEC)**

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Dimethyl sulfoxide 67-68-5	17 mg/L	-	1.7 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Dimethyl sulfoxide 67-68-5	13.4 mg/kg sediment dw	-	11 mg/L	3.02 mg/kg soil dw	0.7 g/kg food

**8.2. Exposure controls****Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Personal protective equipment****Eye/face protection**

Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

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

Hand protection	Wear suitable gloves. Gloves must conform to standard EN 374.
Skin and body protection	Wear suitable protective clothing (EN ISO 6529).
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.
Environmental exposure controls	No information available.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	Clear liquid
Physical state	Liquid
Color	Colorless. Light blue, light yellow, light pink. or light orange
Odor	Odorless
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
pH	7 - 9.5	No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Vapor pressure		No data available
Relative density		No data available
Bulk density		No data available
Liquid Density		No data available
Relative vapor density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

**9.2. Other information**

- 9.2.1. Information with regard to physical hazard classes**  
Not applicable
- 9.2.2. Other safety characteristics**  
No information available



**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reactivity None under normal use conditions.

**10.2. Chemical stability**

Stability Stable under normal conditions.

**Explosion data**

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions None under normal processing.

**10.4. Conditions to avoid**

Conditions to avoid None known based on information supplied.

**10.5. Incompatible materials**

Incompatible materials None known based on information supplied.

**10.6. Hazardous decomposition products**

Hazardous decomposition products None known based on information supplied.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

**Inhalation** Specific test data for the substance or mixture is not available.  
**Eye contact** Specific test data for the substance or mixture is not available. Contact with eyes may cause irritation.  
**Skin contact** Specific test data for the substance or mixture is not available.  
**Ingestion** Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** None known.

**Acute toxicity****Numerical measures of toxicity**

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

**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

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**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 sensitization** 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.

**SECTION 11: Toxicological information**

Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	Based on available data, the classification criteria are not met.
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**

<b>11.2.1. Endocrine disrupting properties</b>	
Endocrine disrupting properties	This product does not contain any known or suspected endocrine disruptors.
<b>11.2.2. Other information</b>	
Other adverse effects	No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

Ecotoxicity	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.
Unknown aquatic toxicity	Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Dimethyl sulfoxide 67-68-5	-	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)	-	-

**12.2. Persistence and degradability**

Persistence and degradability	No information available.
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**12.3. Bioaccumulative potential**

Bioaccumulation  
Component Information

Chemical name	Partition coefficient
Dimethyl sulfoxide	-1.35

**12.4. Mobility in soil**

Mobility in soil	No information available.
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**12.5. Results of PBT and vPvB assessment**

PBT and vPvB assessment	The product does not contain any substance(s) classified as PBT or vPvB.
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Chemical name	PBT and vPvB assessment
Dimethyl sulfoxide 67-68-5	The substance is not PBT / vPvB

**12.6. Endocrine disrupting properties**

Endocrine disrupting properties	This product does not contain any known or suspected endocrine disruptors.
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**12.7. Other adverse effects**

Other adverse effects	No information available.
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**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**SECTION 13: Disposal considerations**

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.
<b>Waste codes / waste designations according to EWC / AVV</b>	According to the European Waste Catalog, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information**

<b>IMDG</b>	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users Special Provisions</b>	None
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	No information available

<b>RID</b>	Not regulated
<b>14.1 UN number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users Special Provisions</b>	None

<b>ADR</b>	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users Special Provisions</b>	None

<b>IATA</b>	Not regulated
<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users Special Provisions</b>	None

Note: None

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**SECTION 15: Regulatory information****National regulations****France****Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number
Dimethyl sulfoxide 67-68-5	RG 84

**Germany**

**Water hazard class (WGK)** non-hazardous to water (nwg)

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorizations and/or restrictions on use:**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Dimethyl sulfoxide - 67-68-5	75.	-

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**15.2. Chemical safety assessment**

**Chemical Safety Report** No information available

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

ATE: Acute Toxicity Estimate

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average)

Ceiling Maximum limit value

SCBA Self-contained breathing apparatus

STEL

\*

STEL (Short Term Exposure Limit)

Skin designation

**Classification procedure**

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method

**SECTION 16: Other information**

Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	On basis of test data
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

**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)  
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
European Chemicals Agency (ECHA) (ECHA\_API)  
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  
Australia 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)  
United States of America National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

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**Revision Note** Initial Release.

**This safety data sheet complies with the requirements of Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006**

**Disclaimer**

## SECTION 16: Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**