

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 7/19/2019 Revision date: 7/7/2023 Supersedes: 7/19/2019 Version: 2.0

#### **SECTION 1: Identification**

#### 1.1. Identification

Product form : Mixture

Product name : BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%)

Product code : DLM-10923-S

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

Cambridge Isotope Laboratories, Inc.

50 Frontage Rd

01810

ANDOVER, MA, 01810

USA

T 1-800-322-1174

cilsales@isotope.com - www.isotope.com

#### 1.4. Emergency telephone number

Emergency number : 1-703-741-5970

Chemtrec 1-800-424-9300 24 hours

### **SECTION 2: Hazard(s) identification**

#### 2.1. Classification of the substance or mixture

#### **GHS US classification**

| Flammable liquids Category 2                                | H225 | Highly flammable liquid and vapor                             |
|-------------------------------------------------------------|------|---------------------------------------------------------------|
| Acute toxicity (oral) Category 3                            | H301 | Toxic if swallowed                                            |
| Acute toxicity (dermal) Category 3                          | H311 | Toxic in contact with skin                                    |
| Acute toxicity (inhalation:vapor) Category 3                | H331 | Toxic if inhaled                                              |
| Skin corrosion/irritation Category 2                        | H315 | Causes skin irritation                                        |
| Serious eye damage/eye irritation Category 2A               | H319 | Causes serious eye irritation                                 |
| Specific target organ toxicity (single exposure) Category 1 | H370 | Causes damage to organs (eyes, kidneys, liver, heart, central |
|                                                             |      | nervous system) (Dermal, Inhalation, oral)                    |

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

#### **GHS US labeling**

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

H315 - Causes skin irritation H319 - Causes serious eye irritation

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Precautionary statements (GHS US)

H370 - Causes damage to organs (eyes, kidneys, liver, heart, central nervous system) (Dermal, Inhalation, oral)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking, heat, open flames, sparks

P233 - Keep container tightly closed.

P240 - Ground/Bond container and receiving equipment.

P241 - Use explosion-proof electrical, lighting, ventilating equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe dust, fume, mist, gas, spray, vapors.

P261 - Avoid breathing dust, fume, gas, spray, vapors, mist.

P264 - Wash hands, forearms and face thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective clothing, protective gloves.

P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER.

P302+P352 - If on skin: Wash with plenty of water.

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307+P311 - If exposed: Call a poison center/doctor.

P311 - Call a doctor, a POISON CENTER.

P312 - Call a doctor, a POISON CENTER if you feel unwell.

P321 - Specific treatment (see Hazardous component(s) for labeling on this label).

P322 - Specific treatment (see Hazard pictograms (CLP) on this label)

P330 - Rinse mouth.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder to extinguish.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P403+P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

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

#### 3.1. Substances

Not applicable

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### 3.2. Mixtures

| Name                                      | Product identifier              | %      | GHS US classification                                                                                                                                                   |
|-------------------------------------------|---------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| METHANOL-OD (D, 99%)                      | CAS-No.: 67-56-1                | 99.988 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 1, H370 |
| BISPHENOL S (2,2',3,3',5,5',6,6'-D8, 98%) | CAS-No.: 80-09-1<br>(Unlabeled) | 0.012  | Eye Irrit. 2A, H319<br>STOT SE 3, H335                                                                                                                                  |

Full text of hazard classes and H-statements : see section 16

#### **SECTION 4: First-aid measures**

#### 4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand. Call a physician immediately. Evacuate danger area.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Call a doctor.

First-aid measures after skin contact : Rinse skin with water/shower. Take immediately victim to hospital. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Call a physician immediately.

#### 4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be

construed as guaranteeing any specific property of the product. Effects due to Ingestion may include: Headache. Dizziness. Drowsiness. metabolic acidosis. Coma. May be fatal if swallowed and enters airways. If swallowed there is a risk of blindness. Effects on humans. stomach.

Symptoms/effects : Causes damage to organs (Eyes, heart, liver, kidneys, central nervous system) (in contact with skin, if inhaled, if swallowed).

Symptoms/effects after inhalation : Toxic if inhaled.

Symptoms/effects after skin contact : Toxic in contact with skin. Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed.

## 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

#### **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry powder. Dry sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

7/7/2023 (Revision date) US - en 3/16

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### 5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor. Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing. Wear recommended personal protective equipment.

Other information : Use water spray to cool exposed surfaces.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Wear respiratory protection. Do not breathe dust, mist, gas, spray, vapors, fume. Avoid contact

with skin, eyes and clothing. Ventilate spillage area. Remove all sources of ignition. No open flames, no sparks, and no smoking. Ensure adequate air ventilation. Special attention should be

given to low areas/pits where flammable vapors can accumulate.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

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

For containment : For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent

safe disposal. Dike and contain spill. Small quantities of liquid spill: take up in non-combustible

absorbent material and shovel into container for disposal.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters. This material and its container must be disposed of in a safe way, and as per local

legislation.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

#### **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust, fume, gas, spray, vapors, mist. Do not get in eyes, on skin, or on clothing. Use only

outdoors or in a well-ventilated area.

Hygiene measures : Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Do not eat, drink or smoke

when using this product. Always wash hands after handling the product.

7/7/2023 (Revision date) US - en 4/16

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

Technical measures : Ground/bond container and receiving equipment. Store in a well-ventilated place. Keep container

tightly closed. Store locked up.

Storage conditions : Store at room temperature away from light and moisture.

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

#### 8.1. Control parameters

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                                                                                                                                                                                                        |  |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| USA - ACGIH - Occupational Exposure Limits                           |                                                                                                                                                                                                        |  |
| ACGIH OEL TWA [ppm]                                                  | 200 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)                                                                                                                                                 |  |
| ACGIH OEL STEL [ppm]                                                 | 250 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)                                                                                                                                                 |  |
| Remark (ACGIH)                                                       | Headache. Nausea. Dizziness. Eye damage. Substances for which there is a Biological Exposure Index or Indices (see BEI section). Danger of cutaneous absorption.                                       |  |
| ACGIH chemical category                                              | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH.                                                         |  |
| USA - ACGIH - Biological Exposure Indices                            |                                                                                                                                                                                                        |  |
| BEI                                                                  | 15 mg/l Urine Basis: ACGIH - Biological Exposure Indices (BEI)                                                                                                                                         |  |
| Remark                                                               | End of shift (As soon as possible after exposure ceases)                                                                                                                                               |  |
| USA - OSHA - Occupational Exposure Limits                            |                                                                                                                                                                                                        |  |
| OSHA PEL TWA [1]                                                     | 260 mg/m³ Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107) |  |
| OSHA PEL TWA [2]                                                     | 200 ppm Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107)   |  |
| OSHA PEL STEL [1]                                                    | 325 mg/m³ Basis: USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                |  |
| OSHA PEL STEL [2]                                                    | 250 ppm Basis: USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                  |  |
| OSHA PEL C [ppm]                                                     | 1000 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                                                                                       |  |
| Remark (OSHA)                                                        | The value in mg/m3 is approximate. Skin notation.                                                                                                                                                      |  |
| USA - NIOSH - Occupational Exposure Limits                           |                                                                                                                                                                                                        |  |
| NIOSH REL TWA                                                        | 260 mg/m³ Basis: NIOSH Recommended Exposure Limits                                                                                                                                                     |  |
| NIOSH REL TWA [ppm]                                                  | 200 ppm Basis: NIOSH Recommended Exposure Limits                                                                                                                                                       |  |
| NIOSH REL STEL                                                       | 325 mg/m³ Basis: NIOSH Recommended Exposure Limits                                                                                                                                                     |  |
| NIOSH REL STEL [ppm]                                                 | 250 ppm Basis: NIOSH Recommended Exposure Limits                                                                                                                                                       |  |
| Remark (NIOSH)                                                       | Potential for dermal absorption.                                                                                                                                                                       |  |

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| METHANOL-OD (D, 99%) (67-56-1)                                  |                                                                                                                                                                                                        |  |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| USA - ACGIH - Occupational Exposure Limits                      |                                                                                                                                                                                                        |  |
| Local name                                                      | Methanol                                                                                                                                                                                               |  |
| ACGIH OEL TWA [ppm]                                             | 200 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)                                                                                                                                                 |  |
| ACGIH OEL STEL [ppm]                                            | 250 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)                                                                                                                                                 |  |
| Remark (ACGIH)                                                  | Headache. Nausea. Dizziness. Eye damage. Substances for which there is a Biological Exposure Index or Indices (see BEI section). Danger of cutaneous absorption.                                       |  |
| ACGIH chemical category                                         | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH.                                                         |  |
| Regulatory reference                                            | ACGIH 2022                                                                                                                                                                                             |  |
| USA - ACGIH - Biological Exposure Indices                       |                                                                                                                                                                                                        |  |
| Local name                                                      | METHANOL                                                                                                                                                                                               |  |
| BEI                                                             | 15 mg/l Urine Basis: ACGIH - Biological Exposure Indices (BEI)                                                                                                                                         |  |
| Remark                                                          | End of shift (As soon as possible after exposure ceases)                                                                                                                                               |  |
| Regulatory reference                                            | ACGIH 2022                                                                                                                                                                                             |  |
| USA - OSHA - Occupational Exposure Limits                       |                                                                                                                                                                                                        |  |
| Local name                                                      | Methyl alcohol                                                                                                                                                                                         |  |
| OSHA PEL TWA [1]                                                | 260 mg/m³ Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107) |  |
| OSHA PEL TWA [2]                                                | 200 ppm Basis: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107)   |  |
| OSHA PEL STEL [1]                                               | 325 mg/m³ Basis: USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                |  |
| OSHA PEL STEL [2]                                               | 250 ppm Basis: USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000. California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                  |  |
| OSHA PEL C [ppm]                                                | 1000 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                                                                                       |  |
| Remark (OSHA)                                                   | The value in mg/m3 is approximate. Skin notation.                                                                                                                                                      |  |
| Regulatory reference (US-OSHA)                                  | OSHA Annotated Table Z-1                                                                                                                                                                               |  |
| USA - NIOSH - Occupational Exposure Limits                      |                                                                                                                                                                                                        |  |
| NIOSH REL TWA                                                   | 260 mg/m³ Basis: NIOSH Recommended Exposure Limits                                                                                                                                                     |  |
| NIOSH REL TWA [ppm]                                             | 200 ppm Basis: NIOSH Recommended Exposure Limits                                                                                                                                                       |  |
| NIOSH REL STEL                                                  | 325 mg/m³ Basis: NIOSH Recommended Exposure Limits                                                                                                                                                     |  |
| NIOSH REL STEL [ppm]                                            | 250 ppm Basis: NIOSH Recommended Exposure Limits                                                                                                                                                       |  |
| Remark (NIOSH)                                                  | Potential for dermal absorption.                                                                                                                                                                       |  |
| BISPHENOL S (2,2',3,3',5,5',6,6'-D8, 98%) (80-09-1 (Unlabeled)) |                                                                                                                                                                                                        |  |
| USA - ACGIH - Occupational Exposure Limits                      |                                                                                                                                                                                                        |  |
| ACGIH chemical category                                         | No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH.                                                         |  |

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.

#### Materials for protective clothing:

Wear suitable protective clothing and gloves

#### Hand protection:

Wear suitable protective clothing and gloves

#### Eye protection:

Wear eye protection. Chemical goggles or face shield with safety glasses

#### Skin and body protection:

Wear suitable protective clothing, gloves and eye/face protection

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator

#### Personal protective equipment symbol(s):









### **SECTION 9: Physical and chemical properties**

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

Physical state: LiquidAppearance: Liquid.Color: ColorlessOdor: Pungent

Odor threshold: No data availablepH: No data availableMelting point: -98 °C (-144 °F)Freezing point: No data availableBoiling point: 64.7 °C (148.5 °F)

Flash point : 9.7 °C (49.5 °F) - closed cup

Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : No data available

Vapor pressure : 130.3 hPa (97.7 mmHg) at 20 °C (68 °F); 169.27 hPa (126.96 mmHg) at 25 °C (77 °F)

Vapor pressure at 50°C : 546.6 hPa (410.0 mmHg) at 50 °C (122 °F)

Relative vapor density at 20°C : 1.11

Relative density : No data available

Density : 0.791 g/ml at 25 °C (77 °F) Molecular mass : 33.05 g/mol (Labeled)

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Solubility : No data available

Partition coefficient n-octanol/water (Log Pow) : -0.77

Auto-ignition temperature : 455 °C (851 °F) at 1,013 hPa (760 mmHg)

Decomposition temperature : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available Explosion limits : 6 - 36 % (V) Explosive properties : Not explosive.

Oxidizing properties : The substance or mixture is not classified as oxidizing.

#### 9.2. Other information

No additional information available

#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Vapors may form flammable mixture with air. Highly flammable liquid and vapor.

#### 10.2. Chemical stability

See storage and expiration date on CoA.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

#### 10.5. Incompatible materials

Acid anhydrides. Acid chlorides. Oxidizing agent. Alkali Metal Amides. Reducing agents. Acids.

#### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

# **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Toxic if swallowed.

Acute toxicity (dermal) : Toxic in contact with skin.

Acute toxicity (inhalation) : Toxic if inhaled.

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                                 |
|----------------------------------------------------------------------|---------------------------------|
| LD50 oral rat                                                        | 1187 – 2769 mg/kg               |
| LD50 dermal rabbit                                                   | 17100 mg/kg                     |
| LC50 Inhalation - Rat                                                | 128.2 mg/l/4h ; 87.6 mg/l - 6 h |
| ATE US (oral)                                                        | 100 mg/kg body weight           |
| ATE US (dermal)                                                      | 300 mg/kg body weight           |
| ATE US (gases)                                                       | 700 ppmV/4h                     |

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| BISPHENOL S (100 UG/ML IN METHANO         | L-OD) (2,2',3,3',5,5',6,6'-D8, 98%)                                                                                                                           |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ATE US (vapors)                           | 3 mg/l/4h                                                                                                                                                     |
| ATE US (dust, mist)                       | 0.5 mg/l/4h                                                                                                                                                   |
| Additional data                           | LDLO, oral, human: 143 mg/kg Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |
| METHANOL-OD (D, 99%) (67-56-1)            |                                                                                                                                                               |
| LD50 oral rat                             | 100 mg/kg Source: National Institute of Environmental Research NCIS                                                                                           |
| LD50 oral                                 | 1400 mg/kg                                                                                                                                                    |
| LD50 dermal rabbit                        | 300 mg/kg Source: ECHA                                                                                                                                        |
| LC50 Inhalation - Rat                     | 128.2 mg/l/4h ; 87.6 mg/l - 6 h                                                                                                                               |
| ATE US (oral)                             | 100 mg/kg body weight                                                                                                                                         |
| ATE US (dermal)                           | 300 mg/kg body weight                                                                                                                                         |
| ATE US (vapors)                           | 3 mg/l/4h                                                                                                                                                     |
| ATE US (dust, mist)                       | 128.2 mg/l/4h                                                                                                                                                 |
| LDLO, oral, human                         | 143 mg/kg Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.                    |
| BISPHENOL S (2,2',3,3',5,5',6,6'-D8, 98%) | (80-09-1 (Unlabeled))                                                                                                                                         |
| LD50 oral rat                             | 4556 mg/kg                                                                                                                                                    |
| LD50 dermal rabbit                        | > 10250 mg/kg                                                                                                                                                 |
| ATE US (oral)                             | 4556 mg/kg body weight                                                                                                                                        |
| Skin corrosion/irritation                 | : Causes skin irritation.                                                                                                                                     |
| METHANOL-OD (D, 99%) (67-56-1)            |                                                                                                                                                               |
| рН                                        | 12.1 Source: Gestis                                                                                                                                           |
| Serious eye damage/irritation             | : Causes serious eye irritation.                                                                                                                              |
| METHANOL-OD (D, 99%) (67-56-1)            |                                                                                                                                                               |
| рН                                        | 12.1 Source: Gestis                                                                                                                                           |
| Respiratory or skin sensitization         | : Not classified                                                                                                                                              |
| Germ cell mutagenicity                    | : Not classified                                                                                                                                              |
| Carcinogenicity                           | : Not classified                                                                                                                                              |
| BISPHENOL S (100 UG/ML IN METHANO         |                                                                                                                                                               |
| National Toxicology Program (NTP) Status  | No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC.    |
| METHANOL-OD (D, 99%) (67-56-1)            |                                                                                                                                                               |
| National Toxicology Program (NTP) Status  | No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC.    |
| Reproductive toxicity                     | : Not classified                                                                                                                                              |
| STOT-single exposure                      | : Causes damage to organs (eyes, kidneys, liver, heart, central nervous system) (Dermal, Inhalation, oral).                                                   |

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| METHANOL-OD (D, 99%) (67-56-1)               |                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| STOT-single exposure                         | Causes damage to organs (eyes, kidneys, liver, heart, central nervous system) (Dermal, Inhalation, oral).                                                                                                                                                                                                                                                                            |  |  |
| BISPHENOL S (2,2',3,3',5,5',6,6'-D8, 98%) (8 | 0-09-1 (Unlabeled))                                                                                                                                                                                                                                                                                                                                                                  |  |  |
| STOT-single exposure                         | May cause respiratory irritation.                                                                                                                                                                                                                                                                                                                                                    |  |  |
| STOT-repeated exposure                       | : Not classified                                                                                                                                                                                                                                                                                                                                                                     |  |  |
| Aspiration hazard                            | : Not classified                                                                                                                                                                                                                                                                                                                                                                     |  |  |
| Viscosity, kinematic                         | : No data available                                                                                                                                                                                                                                                                                                                                                                  |  |  |
| METHANOL-OD (D, 99%) (67-56-1)               | METHANOL-OD (D, 99%) (67-56-1)                                                                                                                                                                                                                                                                                                                                                       |  |  |
| Viscosity, kinematic                         | 0.688 mm <sup>2</sup> /s                                                                                                                                                                                                                                                                                                                                                             |  |  |
| Potential Adverse human health effects and   | : This information is based on our current knowledge and is intended to describe the product for                                                                                                                                                                                                                                                                                     |  |  |
| symptoms                                     | the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Effects due to Ingestion may include: Headache. Dizziness. Drowsiness. metabolic acidosis. Coma. May be fatal if swallowed and enters airways. If swallowed there is a risk of blindness. Effects on humans. stomach. |  |  |
| Symptoms/effects                             | : Causes damage to organs (Eyes, heart, liver, kidneys, central nervous system) (in contact with skin, if inhaled, if swallowed).                                                                                                                                                                                                                                                    |  |  |
| Symptoms/effects after inhalation            | : Toxic if inhaled.                                                                                                                                                                                                                                                                                                                                                                  |  |  |
| Symptoms/effects after skin contact          | : Toxic in contact with skin. Causes skin irritation.                                                                                                                                                                                                                                                                                                                                |  |  |
| Symptoms/effects after eye contact           | : Causes serious eye irritation.                                                                                                                                                                                                                                                                                                                                                     |  |  |
| Symptoms/effects after ingestion             | : Toxic if swallowed.                                                                                                                                                                                                                                                                                                                                                                |  |  |

# SECTION 12: Ecological information

# 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                                                                                          |  |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------|--|
| LC50 - Fish [1]                                                      | 15400 mg/l mortality LC50 - Lepomis machrochirus (Bluegill) - 96 h                       |  |
| EC50 - Crustacea [1]                                                 | > 10000 mg/l Daphnia magna (Water flea) - 48 h                                           |  |
| EC50 - Crustacea [2]                                                 | 22000 mg/l Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 96 h |  |
| NOEC (acute)                                                         | 7900 mg/l Oryzias latipes - 200 h                                                        |  |
| METHANOL-OD (D, 99%) (67-56-1)                                       |                                                                                          |  |
| LC50 - Fish [1]                                                      | 15400 mg/l Source: ECHA                                                                  |  |
| EC50 - Crustacea [1]                                                 | 1340 mg/l                                                                                |  |
| EC50 - Crustacea [2]                                                 | 22000 mg/l Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 96 h |  |
| EC50 96h - Algae [1]                                                 | 22000 mg/l Source: ECHA                                                                  |  |
| NOEC (acute)                                                         | 7900 mg/l Oryzias latipes - 200 h                                                        |  |

### 12.2. Persistence and degradability

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                 |
|----------------------------------------------------------------------|-----------------|
| Biochemical oxygen demand (BOD)                                      | 600 – 1200 mg/g |

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                                                          |
|----------------------------------------------------------------------|----------------------------------------------------------|
| Chemical oxygen demand (COD)                                         | 1420 mg/g                                                |
| ThOD                                                                 | 1500 mg/g                                                |
| Biodegradation                                                       | 72 % - rapidly biodegradable aerobic - Exposure time 5 d |
| METHANOL-OD (D, 99%) (67-56-1)                                       |                                                          |
| Not rapidly degradable                                               |                                                          |
| Biochemical oxygen demand (BOD)                                      | 600 – 1200 mg/g                                          |
| Chemical oxygen demand (COD)                                         | 1420 mg/g                                                |
| ThOD                                                                 | 1500 mg/g                                                |
| Biodegradation                                                       | 72 % - rapidly biodegradable aerobic - Exposure time 5 d |

# 12.3. Bioaccumulative potential

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                                               |  |
|----------------------------------------------------------------------|-----------------------------------------------|--|
| BCF - Fish [1]                                                       | 5 mg/l Cyprinus carpio (Carp) - 72 d at 20 °C |  |
| Bioconcentration factor (BCF REACH)                                  | 1                                             |  |
| Partition coefficient n-octanol/water (Log Pow)                      | -0.77                                         |  |
| METHANOL-OD (D, 99%) (67-56-1)                                       |                                               |  |
| BCF - Fish [1]                                                       | 5 mg/l Cyprinus carpio (Carp) - 72 d at 20 °C |  |
| Bioconcentration factor (BCF REACH)                                  | 1                                             |  |
| Partition coefficient n-octanol/water (Log Pow)                      | -0.77 Source: HSDB,CHemIDplus                 |  |

### 12.4. Mobility in soil

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                             |  |
|----------------------------------------------------------------------|-----------------------------|--|
| Ecology - soil                                                       | Not degradable in the soil. |  |
| METHANOL-OD (D, 99%) (67-56-1)                                       |                             |  |
| Mobility in soil                                                     | 2.75 Source: HSDB           |  |
| Ecology - soil                                                       | Not degradable in the soil. |  |

#### 12.5. Other adverse effects

Other adverse effects : Avoid release to the environment. Disposal must be done according to official regulations.

Other information : Stability in water: at 19 °C - (83 - 91%) - 72 h. Remarks: Hydrolyses on contact with water. Hydrolyses readily.

# **SECTION 13: Disposal considerations**

### 13.1. Disposal methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed

professional waste disposal service to dispose of this material.

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Ecology - waste materials : Dispose of as unused product.

## **SECTION 14: Transport information**

In accordance with DOT / TDG / IMDG / IATA

#### 14.1. UN number

DOT NA No : UN1230 UN-No. (TDG) : UN1230 UN-No. (IMDG) : 1230 UN-No. (IATA) : 1230

#### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Methanol
Proper Shipping Name (TDG) : METHANOL
Proper Shipping Name (IMDG) : METHANOL
Proper Shipping Name (IATA) : Methanol

# 14.3. Transport hazard class(es)

#### DOT

Transport hazard class(es) (DOT) : 3 (6.1) Hazard labels (DOT) : 3, 6.1



#### TDG

Transport hazard class(es) (TDG) : 3 (6.1) Hazard labels (TDG) : 3, 6.1



#### **IMDG**

Transport hazard class(es) (IMDG) : 3 (6.1) Hazard labels (IMDG) : 3, 6.1



#### IATA

Transport hazard class(es) (IATA) : 3 (6.1) Hazard labels (IATA) : 3, 6.1



### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### 14.4. Packing group

Packing group (DOT) : II
Packing group (TDG) : II
Packing group (IMDG) : II
Packing group (IATA) : II

#### 14.5. Environmental hazards

Other information : No supplementary information available.

#### 14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1230

DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite

(31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image)

Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59

F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Quantity Limitations Passenger aircraft/rail (49 : 1 L

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

DOT Vessel Stowage Location

: 60 L

: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

**TDG** 

UN-No. (TDG) : UN1230

TDG Special Provisions : 43 - Despite section 2.1 of Part 2 (Classification), these dangerous goods are assigned to this

classification based on human experience.

Explosive Limit and Limited Quantity Index : 1 L
Excepted quantities (TDG) : E2
Passenger Carrying Road Vehicle or Passenger : 1 L

Carrying Railway Vehicle Index

Emergency Response Guide (ERG) Number : 131

**IMDG** 

Special provision (IMDG) : 279
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T7

7/7/2023 (Revision date) US - en 13/16

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Tank special provisions (IMDG) : TP2

EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS

EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS

Stowage category (IMDG) : B
Stowage and handling (IMDG) : SW2
Flash point (IMDG) : 12°C c.c.

Properties and observations (IMDG) : Colourless, volatile liquid. Flashpoint: 12°C c.c. Explosive limits: 6% to 36.5% Miscible with

water. Toxic if swallowed; may cause blindness. Avoid skin contact.

MFAG-No : 131

IATA

PCA Excepted quantities (IATA) : E2 PCA Limited quantities (IATA) : Y341 PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA) : 352 PCA max net quantity (IATA) : 1L CAO packing instructions (IATA) 364 CAO max net quantity (IATA) 60L Special provision (IATA) : A113 ERG code (IATA) : 3L

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

### **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                                                                             |  |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------|--|
| SARA Section 302 Threshold Planning Quantity (TPQ)                   | Not subject to reporing requirements of the United States SARA Section 302. |  |
| SARA Section 311/312 Hazard Classes                                  | Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard |  |

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name                                      | CAS-No.             | Listing     | Commercial status | Flags |
|-------------------------------------------|---------------------|-------------|-------------------|-------|
| METHANOL-OD (D, 99%)                      | 67-56-1             | Present     | Active            |       |
| BISPHENOL S (2,2',3,3',5,5',6,6'-D8, 98%) | 80-09-1 (Unlabeled) | Not present | -                 |       |

| METHANOL-OD (D, 99%) (67-56-1)      |                                                                             |
|-------------------------------------|-----------------------------------------------------------------------------|
| CERCLA RQ                           | 5000 lb                                                                     |
| SARA Section 311/312 Hazard Classes | Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard |

| BISPHENOL S (2,2',3,3',5,5',6,6'-D8, 98%) (80-09-1 (Unlabeled)) |                                                                             |  |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------|--|
| SARA Section 302 Threshold Planning Quantity (TPQ)              | Not subject to reporting requirements of the United States SARA Section 302 |  |

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| BISPHENOL S (2,2',3,3',5,5',6,6'-D8, 98%) (80-09-1 (Unlabeled)) |                                 |
|-----------------------------------------------------------------|---------------------------------|
| SARA Section 311/312 Hazard Classes                             | Immediate (acute) health hazard |

#### 15.2. International regulations

#### **CANADA**

#### BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%)

Listed on the Canadian DSL (Domestic Substances List)

#### METHANOL-OD (D, 99%) (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

#### **National regulations**

#### BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%)

CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States.

#### 15.3. US State regulations

| BISPHENOL S (100 UG/ML IN METHANOL-OD) (2,2',3,3',5,5',6,6'-D8, 98%) |                                                                                                        |  |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--|
| U.S California - Proposition 65 - Carcinogens List                   | No                                                                                                     |  |
| U.S California - Proposition 65 - Developmental Toxicity             | Yes                                                                                                    |  |
| U.S California - Proposition 65 - Reproductive Toxicity - Female     | No                                                                                                     |  |
| U.S California - Proposition 65 - Reproductive Toxicity - Male       | No                                                                                                     |  |
| State or local regulations                                           | U.S New Jersey - Right to Know Hazardous Substance List<br>U.S Pennsylvania - RTK (Right to Know) List |  |

| METHANOL-OD (D, 99%) (67-56-1)                           |                                                                |                                                                           |                                                                         |                                     |                                                       |
|----------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------|
| U.S California -<br>Proposition 65 -<br>Carcinogens List | U.S California -<br>Proposition 65 -<br>Developmental Toxicity | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity<br>- Female | U.S California -<br>Proposition 65 -<br>Reproductive Toxicity<br>- Male | No significant risk<br>level (NSRL) | Maximum allowable dose level (MADL)                   |
| No                                                       | Yes                                                            | No                                                                        | No                                                                      |                                     | 47000 μg/day<br>(inhalation); 23,000<br>μg/day (oral) |

| Component                      | State or local regulations                                                                      |
|--------------------------------|-------------------------------------------------------------------------------------------------|
| METHANOL-OD (D, 99%) (67-56-1) | U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List |

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### **SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 07/07/2023

Other information : This product is not radioactive. The data given for this product are those of the corresponding

unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the

corresponding unlabeled compound.

| Full text of I | Full text of H-phrases            |  |  |
|----------------|-----------------------------------|--|--|
| H225           | Highly flammable liquid and vapor |  |  |
| H301           | Toxic if swallowed                |  |  |
| H311           | Toxic in contact with skin        |  |  |
| H315           | Causes skin irritation            |  |  |
| H319           | Causes serious eye irritation     |  |  |
| H331           | Toxic if inhaled                  |  |  |
| H335           | May cause respiratory irritation  |  |  |
| H370           | Causes damage to organs           |  |  |

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.