



**SAFETY DATA SHEET**  
**1,3 BIS(HYDROXYMETHYL)-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE**

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

**1.1. Product identifier**

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| Product name              | 1,3 BIS(HYDROXYMETHYL)-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE |
| Product number            | 20868                                                      |
| Synonyms; trade names     | KEMIDANT                                                   |
| REACH registration number | 01-2119976015-37-XXXX                                      |
| CAS number                | 6440-58-0                                                  |
| EC number                 | 229-222-8                                                  |

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

|                 |                        |
|-----------------|------------------------|
| Identified uses | Cosmetics Preservative |
|-----------------|------------------------|

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

|          |                                                                                                                                      |
|----------|--------------------------------------------------------------------------------------------------------------------------------------|
| Supplier | Univar<br>Aquarius House<br>6 Mid Point Business Park<br>Bradford<br>BD3 7AY<br>+44 1274 267300<br>+44 1274 267306<br>sds@univar.com |
|----------|--------------------------------------------------------------------------------------------------------------------------------------|

**1.4. Emergency telephone number**

|                     |                                |
|---------------------|--------------------------------|
| Emergency telephone | SGS - +32 (0)3 575 55 55 (24h) |
| Sds No.             | 20868                          |

**SECTION 2: Hazards identification**

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

**Classification (EC 1272/2008)**

|                       |                     |
|-----------------------|---------------------|
| Physical hazards      | Not Classified      |
| Health hazards        | Acute Tox. 4 - H302 |
| Environmental hazards | Not Classified      |

**2.2. Label elements**

|           |           |
|-----------|-----------|
| EC number | 229-222-8 |
|-----------|-----------|

Pictogram



|             |         |
|-------------|---------|
| Signal word | Warning |
|-------------|---------|

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|                                 |                                                                                                                                                                                                                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazard statements</b>        | H302 Harmful if swallowed.                                                                                                                                                                                                                                                                         |
| <b>Precautionary statements</b> | P264 Wash contaminated skin thoroughly after handling.<br>P270 Do not eat, drink or smoke when using this product.<br>P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.<br>P330 Rinse mouth.<br>P501 Dispose of contents/ container in accordance with national regulations. |

## 2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| <b>Product name</b>              | 1,3 BIS(HYDROXYMETHYL)-5,5-DIMETHYLMIDAZOLIDINE-2,4-DIONE       |
| <b>REACH registration number</b> | 01-2119976015-37-XXXX                                           |
| <b>CAS number</b>                | 6440-58-0                                                       |
| <b>EC number</b>                 | 229-222-8                                                       |
| <b>Composition comments</b>      | The data shown are in accordance with the latest EC Directives. |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                     |                                                                                                                                                                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues.     |
| <b>Ingestion</b>    | Remove person to fresh air and keep comfortable for breathing. Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.                              |
| <b>Skin contact</b> | Remove affected person from source of contamination. Remove contaminated clothing. Rinse immediately with plenty of water. Get medical attention promptly if symptoms occur after washing. Wash clothing and clean shoes thoroughly before reuse. |
| <b>Eye contact</b>  | Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.                                         |

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

|                    |                                     |
|--------------------|-------------------------------------|
| <b>Ingestion</b>   | Harmful if swallowed.               |
| <b>Eye contact</b> | May cause temporary eye irritation. |

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

|                             |                        |
|-----------------------------|------------------------|
| <b>Notes for the doctor</b> | Treat symptomatically. |
|-----------------------------|------------------------|

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                       |                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. |
| <b>Unsuitable extinguishing media</b> | Do not use water jet as an extinguisher, as this will spread the fire.           |

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

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|                                                      |                                                                                                                                                                                                                                                 |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specific hazards</b>                              | Dust may form explosive mixture with air. When heated and in case of fire, toxic vapours/gases may be formed.                                                                                                                                   |
| <b>Hazardous combustion products</b>                 | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon.                                                                                                    |
| <b><u>5.3. Advice for firefighters</u></b>           |                                                                                                                                                                                                                                                 |
| <b>Protective actions during firefighting</b>        | Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. Contain and collect extinguishing water. |
| <b>Special protective equipment for firefighters</b> | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.                                                                                                                                           |

## SECTION 6: Accidental release measures

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

|                             |                                                                                                                                                                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b> | Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Provide adequate ventilation. Avoid inhalation of dust. Avoid contact with skin and eyes. |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### **6.2. Environmental precautions**

|                                  |                                                                                                                                                                                                                        |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental precautions</b> | Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                                |                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Methods for cleaning up</b> | Avoid generation and spreading of dust. Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. For waste disposal, see Section 13. |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                                    |                                                                             |
|------------------------------------|-----------------------------------------------------------------------------|
| <b>Reference to other sections</b> | For personal protection, see Section 8. For waste disposal, see Section 13. |
|------------------------------------|-----------------------------------------------------------------------------|

## SECTION 7: Handling and storage

### **7.1. Precautions for safe handling**

|                          |                                                                                                                                                                                                                     |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usage precautions</b> | Avoid contact with skin and eyes. Avoid handling which leads to dust formation. Avoid spilling. Provide adequate ventilation. Avoid release to the environment. Do not eat, drink or smoke when using this product. |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                            |                                                                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage precautions</b> | Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store away from the following materials: Strong oxidising agents. Strong alkalis. Strong acids. |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                            |                                                                   |
|----------------------------|-------------------------------------------------------------------|
| <b>Specific end use(s)</b> | The identified uses for this product are detailed in Section 1.2. |
|----------------------------|-------------------------------------------------------------------|

## SECTION 8: Exposure Controls/personal protection

### **8.1. Control parameters**

|                            |                                             |
|----------------------------|---------------------------------------------|
| <b>Ingredient comments</b> | No exposure limits known for ingredient(s). |
|----------------------------|---------------------------------------------|

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|             |                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DNEL</b> | Workers - Inhalation; Long term systemic effects: 70.6 mg/m <sup>3</sup><br>Workers - Dermal; Long term systemic effects: 20 mg/kg/day<br>Consumer - Oral; Long term systemic effects: 10 mg/kg/day<br>Consumer - Dermal; Long term systemic effects: 10 mg/kg/day<br>Consumer - Inhalation; Long term systemic effects: 17.4 mg/m <sup>3</sup> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|             |                                                                                                       |
|-------------|-------------------------------------------------------------------------------------------------------|
| <b>PNEC</b> | Fresh water; 0.51 mg/l<br>Marine water; 0.051 mg/l<br>Intermittent release; 0.11 mg/l<br>STP; 10 mg/l |
|-------------|-------------------------------------------------------------------------------------------------------|

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Use mechanical ventilation if there is a risk of handling causing formation of airborne dust.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

#### Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

#### Respiratory protection

Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m<sup>3</sup>. If ventilation is inadequate, suitable respiratory protection must be worn. Particulate filter, type P2. EN 136/140/141/145/143/149

## SECTION 9: Physical and Chemical Properties

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

|                                        |                               |
|----------------------------------------|-------------------------------|
| <b>Appearance</b>                      | Powder.                       |
| <b>Colour</b>                          | White.                        |
| <b>Odour</b>                           | Characteristic.               |
| <b>Odour threshold</b>                 | No information available.     |
| <b>pH</b>                              | pH (concentrated solution): 7 |
| <b>Melting point</b>                   | 90°C                          |
| <b>Initial boiling point and range</b> | 198 - 230°C                   |
| <b>Flash point</b>                     | No information available.     |
| <b>Evaporation rate</b>                | No information available.     |

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|                                              |                           |
|----------------------------------------------|---------------------------|
| Evaporation factor                           | No information available. |
| Flammability (solid, gas)                    | No information available. |
| Upper/lower flammability or explosive limits | No information available. |
| Other flammability                           | No information available. |
| Vapour pressure                              | 0.000012 Pa @ 25°C        |
| Vapour density                               | No information available. |
| Relative density                             | 0.40 @ 21°C               |
| Bulk density                                 | No information available. |
| Solubility(ies)                              | Soluble in water.         |
| Partition coefficient                        | : -2.9                    |
| Auto-ignition temperature                    | No information available. |
| Decomposition Temperature                    | No information available. |
| Viscosity                                    | No information available. |
| Explosive properties                         | No information available. |
| Explosive under the influence of a flame     | No information available. |
| Oxidising properties                         | No information available. |

### 9.2. Other information

|                           |                           |
|---------------------------|---------------------------|
| Refractive index          | No information available. |
| Particle size             | No information available. |
| Molecular weight          | 188.18                    |
| Volatility                | No information available. |
| Saturation concentration  | No information available. |
| Critical temperature      | No information available. |
| Volatile organic compound | No information available. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

|            |                                                                     |
|------------|---------------------------------------------------------------------|
| Reactivity | There are no known reactivity hazards associated with this product. |
|------------|---------------------------------------------------------------------|

### 10.2. Chemical stability

|           |                                                                     |
|-----------|---------------------------------------------------------------------|
| Stability | Stable at normal ambient temperatures and when used as recommended. |
|-----------|---------------------------------------------------------------------|

### 10.3. Possibility of hazardous reactions

|                                    |                                           |
|------------------------------------|-------------------------------------------|
| Possibility of hazardous reactions | Dust may form explosive mixture with air. |
|------------------------------------|-------------------------------------------|

### 10.4. Conditions to avoid

|                     |                                                     |
|---------------------|-----------------------------------------------------|
| Conditions to avoid | Avoid excessive heat for prolonged periods of time. |
|---------------------|-----------------------------------------------------|

### 10.5. Incompatible materials

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**Materials to avoid** Strong acids. Strong alkalis. Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 1,572.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> 1572 mg/kg, Oral, Rat Harmful if swallowed.

**ATE oral (mg/kg)** 1,572.0

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> >1052 mg/kg, Dermal, Rabbit

#### Skin corrosion/irritation

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

#### Serious eye damage/irritation

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

#### Respiratory sensitisation

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

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

#### Carcinogenicity

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

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

#### Aspiration hazard

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

#### Inhalation

Dust in high concentrations may irritate the respiratory system.

#### Ingestion

Harmful if swallowed.

#### Skin contact

Skin irritation should not occur when used as recommended.

#### Eye contact

May cause temporary eye irritation.

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## SECTION 12: Ecological Information

**Ecotoxicity** The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

### 12.1. Toxicity

**Toxicity** Not considered toxic to fish.

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >82.3 mg/l, Brachydanio rerio (Zebra Fish)  
OECD 203

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 29.1 mg/l, Daphnia magna  
OECD 202

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 11 mg/l, Desmodemus subspicatus  
OECD 201  
NOEC, : 5.1 mg/l, Desmodemus subspicatus  
OECD 201

#### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** NOEC, : 14 mg/l, Pimephales promelas (Fat-head Minnow)  
OECD 210

**Chronic toxicity - aquatic invertebrates** NOEC, : 70.9 mg/l, Daphnia magna  
OECD 202

### 12.2. Persistence and degradability

**Persistence and degradability** The product is readily biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** BCF: < 1.79, Lepomis macrochirus (Bluegill)

**Partition coefficient** : -2.9

### 12.4. Mobility in soil

**Mobility** The product is soluble in water.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.6. Other adverse effects

**Other adverse effects** Not determined.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Do not puncture or incinerate, even when empty. Waste should be treated as controlled waste.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**1,3 BIS(HYDROXYMETHYL)-5,5-DIMETHYLMIDAZOLIDINE-2,4-DIONE****14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards**

Environmentally hazardous substance/marine pollutant

No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

**15.2. Chemical safety assessment**

A chemical safety assessment has been carried out.

**SECTION 16: Other information**

## 1,3 BIS(HYDROXYMETHYL)-5,5-DIMETHYLMIDAZOLIDINE-2,4-DIONE

### Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.  
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
 CAS: Chemical Abstracts Service.  
 DNEL: Derived No Effect Level.  
 IATA: International Air Transport Association.  
 IMDG: International Maritime Dangerous Goods.  
 Kow: Octanol-water partition coefficient.  
 LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.  
 LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).  
 PBT: Persistent, Bioaccumulative and Toxic substance.  
 PNEC: Predicted No Effect Concentration.  
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.  
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.  
 vPvB: Very Persistent and Very Bioaccumulative.  
 IARC: International Agency for Research on Cancer.  
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.  
 cATpE: Converted Acute Toxicity Point Estimate.  
 BCF: Bioconcentration Factor.  
 BOD: Biochemical Oxygen Demand.  
 EC<sub>50</sub>: 50% of maximal Effective Concentration.  
 LOAEC: Lowest Observed Adverse Effect Concentration.  
 LOAEL: Lowest Observed Adverse Effect Level.  
 NOAEC: No Observed Adverse Effect Concentration.  
 NOAEL: No Observed Adverse Effect Level.  
 NOEC: No Observed Effect Concentration.  
 LOEC: Lowest Observed Effect Concentration.  
 DMEL: Derived Minimal Effect Level.  
 EL50: Exposure Limit 50  
 hPa: Hectopascal  
 LL50: Lethal Loading fifty  
 OECD: Organisation for Economic Co-operation and Development  
 POW: Octanol-water partition coefficient  
 SCBA: self-contained breathing apparatus  
 STP: Sewage Treatment Plant  
 VOC: Volatile Organic Compounds

### Classification abbreviations and acronyms

Acute Tox. = Acute toxicity  
 Aquatic Acute = Hazardous to the aquatic environment (acute)  
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

### Key literature references and sources for data

Supplier's information.

### Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

### Revision date

04/10/2018

### Version number

1.000

### SDS number

20868

### SDS status

Approved.

## 1,3 BIS(HYDROXYMETHYL)-5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE

**Hazard statements in full** H302 Harmful if swallowed.

**Signature** Lisa Bland