# *Safety Data Sheet*

## *According to Regulation (EC) No 1907/2006*

**Butanone oxime**

**Issue date: 29/07/2015** **Version 1.0**

**Revision date: 29/07/2015** **SDS Record Number: CSSS-TCO-010-117769**

## Section 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier:

| | |
|---|---|
| Identification on the label/Trade name: | Butanone oxime |
| Additional identification: | Butanone oxime |
| Identification of the product: | CAS#: 96-29-7 ; EC# : 202-496-6 |
| Index Number: | 616-014-00-0 |
| REACH registration No.: | 01-2119539477-28-xxxx |

### 1.2 Relevant identified uses of the substance and uses advised against:

#### 1.2.1 Identified uses:

F-1: Manufacturing liquid paints

F-2: Formulation of liquid paints containing MEKO

IW-1: Industrial application of coatings

IW-2: Intermediate use of MEKO

IW-3: Formulation of liquid paints containing MEKO

IW-4: Intermediate use of MEKO

PW-1: Professional application of coatings (Indoor)

PW-2: Professional application of coatings (Outdoor)

PW-3: Professional application of paints containing MEKO

C-1: Consumer application of coatings (Indoor)

C-2: Consumer application of coatings (Outdoor)

#### 1.2.2 Uses advised against:

Not available.

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

| | |
|---|---|
| Supplier(Only representative): | Chemical Inspection & Regulation Service Limited |
| Supplier(Manufacturer): | Wuhan Biet Co.,Ltd |
| Address: | Room 1004, Block V, Wuhan Furniture Plaza, Qiaokou District, Wuhan, China |
| Contact person(E-mail): | olivia@biet.com.cn |
| Telephone: | +86-27-83698488 |
| Fax: | +86-27-83291213 |

### 1.4 Emergency telephone Number:

+353 41 980 6916

| | | | | |
|---|---|---|---|---|
| Available outside office hours? | YES | | NO | X |

## Section 2 Hazards Identification

### 2.1 Classification of the substance/mixture

#### 2.1.1 Classification:

The substance is classified as following according to REGULATION (EC) No 1272/2008:

| REGULATION (EC) No 1272/2008 | |
|---|---|
| Hazard classes/Hazard categories | Hazard statement |
| Acute Tox. 4 | H312 |
| Eye Damage 1 | H318 |
| Skin Sens. 1 | H317 |
| Carc. 2 | H351 |

*For full text of H- phrases: see section 2.2.*

**2.2 label elements**

**Hazard Pictograms:**

**Signal Word(S):** Danger

**Hazard Statement:**

H312: Harmful in contact with skin.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H351: Suspected of causing cancer < inhalation exposure>.

**Precautionary statement**

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

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

P308+P313: IF exposed or concerned: Get medical advice/attention.

**2.3 Other hazards**

The substance is not considered a PBT/vPvB.

## Section 3 Composition/information on ingredients

**Substance/Mixture:** Substance

**Ingredient(s):**

| Chemical Name | Registration No. | CAS No. | EC No. | Concentration |
|---|---|---|---|---|
| Butanone oxime | 01-2119539477-28-xxxx | 96-29-7 | 202-496-6 | 99.89 % (w/w) |

## Section 4 First aid measures

**4.1 Description of first aid measures:**

In all cases of doubt, or when symptoms persist, seek medical attention.

**4.1.1 In case of inhalation:**

Remove to fresh air.

**4.1.2 In case of skin contact:**

After contact with skin, wash immediately with plenty of water.

**4.1.3 In case of eyes contact:**

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**4.1.4 In case of ingestion:**

When swallowed, allow water to be drunk.

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

Harmful in contact with skin. May cause an allergic skin reaction. Causes serious eye damage.

Suspected of causing cancer < inhalation exposure>.

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

If skin irritation or rash occurs, get medical advice/attention.

## Section 5 Fire-Fighting measures

### 5.1 Extinguishing media:

| | |
|---|---|
| **Suitable extinguishing media:** | Foam, Carbon dioxide (CO2), Dry powder |
| **Unsuitable extinguishing media:** | Not available |
| **5.2 Special hazards arising from the substance or mixture** | Emits toxic fumes under fire conditions. Combustible liquid. |
| **5.3 Special fire fighting methods and special protective actions for fire-fighters:** | Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. |

## Section 6 Accidental release measures

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

| | |
|---|---|
| **6.1.1 For non-emergency personnel:** | Ensure adequate ventilation. Remove all sources of ignition. Use personal protective equipment. |
| **6.1.2 For emergency responders:** | Use proper personal protective equipment as indicated in Section 8. |
| **6.2 Environmental Precautions:** | Do not allow material to be released to the environment without proper governmental permits |
| **6.3 Methods for Containment and Cleaning up:** | Soak up with inert absorbent material. Pick for disposal in tightly closed containers |
| **6.4 Reference to other sections:** | See Section 7 for information on safe handling.<br>See section 8 for information on personal protection equipment.<br>See Section 13 for information on disposal. |
| **6.5 Additional information:** | Not available |

## Section 7 Handling and storage

### 7.1 Precautions for safe handling:

| | |
|---|---|
| **7.1.1 Protective measures:** | Advice on safe handling: Exhaust ventilation at the object is necessary.<br>Advice on protection against fire and explosion: No special precautions required. |
| **7.1.2 Advice on general occupational hygiene:** | Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. |
| **7.2 Conditions for safe storage, including any incompatibilities:** | Further information on storage conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from warmth. Containers should be protected against falling down. |
| **7.3 Specific end use(s):** | Not applicable. |

## Section 8 Exposure Controls/Personal Protection

### 8.1 Control parameters:

**8.1.1 Occupational exposure limits:** Not available

**8.1.2 Additional exposure limits under the conditions of use:** Not available

**8.1.3 DNEL/DMEL and PNEC-Values:**

DN(M)ELs for workers

| Route | Type of effect | Hazard conclusion | Most sensitive endpoint |
|---|---|---|---|
| Inhalation | Systemic effects - Long-term | DNEL (Derived No Effect Level): 9 mg/m³ | repeated dose toxicity (By inhalation) |
| Inhalation | Systemic effects - Acute | | |
| Inhalation | Local effects - Long-term | DNEL (Derived No Effect Level): 3.33 mg/m³ | repeated dose toxicity |
| Inhalation | Local effects - Acute | | |
| Dermal | Systemic effects - Long-term | DNEL (Derived No Effect Level): 1.3 mg/kg bw/day | repeated dose toxicity (By inhalation) |
| Dermal | Systemic effects - Acute | | acute toxicity (Dermal) |
| Dermal | Local effects - Long-term | | |
| Dermal | Local effects - Acute | | |
| Eyes | Local effects | | |

DN(M)ELs for the general population

| Route | Type of effect | Hazard conclusion | Most sensitive endpoint |
|---|---|---|---|
| Inhalation | Systemic effects - Long-term | DNEL (Derived No Effect Level): 2.7 mg/m³ | repeated dose toxicity (By inhalation) |
| Inhalation | Systemic effects - Acute | | |
| Inhalation | Local effects - Long-term | DNEL (Derived No Effect Level): 2 mg/m³ | repeated dose toxicity |
| Inhalation | Local effects - Acute | | |
| Dermal | Systemic effects - Long-term | DNEL (Derived No Effect Level): 0.78 mg/kg bw/day | repeated dose toxicity |
| Dermal | Systemic effects - Acute | DNEL (Derived No Effect Level): 1.5 mg/kg bw/day | acute toxicity (Dermal) |
| Dermal | Local effects - Long-term | | |
| Dermal | Local effects - Acute | | |
| Oral | Systemic effects - Long-term | | |
| Oral | Systemic effects - Acute | | |
| Eyes | Local effects | | |

PNEC

| PNEC | Value | Assessment factor | Remarks/Justification |
|---|---|---|---|
| PNEC $_{\text{aqua - freshwater}}$ (mg/L) | 0.256 | 10 | Extrapolation method: assessment factor |
| PNEC $_{\text{aqua -marine water}}$ (mg /L) | N/A | N/A | |

| | | | |
|---|---|---|---|
| PNEC $_{aqua\ -\ intermittent\ releases}$ (mg /L) | 0.118 | 100 | Extrapolation method: assessment factor |
| PNEC $_{fresh\ water\ sediment}$ (mg/kg sediment dw ) | N/A | N/A | |
| PNEC $_{marine\text{-}sediment}$(mg/kg sediment dw ) | N/A | N/A | |
| PNEC $_{soil}$(mg/kg soil dw ) | N/A | N/A | |
| PNEC stp(mg/L) | 177 | 1 | Extrapolation method: assessment factor |
| PNEC oral(mg/kg food ) | N/A | N/A | |

### 8.2 Exposure controls

**8.2.1Appropriate engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**8.2.2 Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** Goggles

**Hand protection:** Glove material: Nitrile rubber. Break through time: > 480 min. Glove thickness: 0,4 mm. Camatril 730

Remarks: Supplementary note: The specifications are based on information and tests from similar substances by analogy. Due to varying conditions ( e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374. Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time. Manufacturer´s directions for use should be observed because of great diversity of types . Suitable gloves tested according EN 374 are suppliede.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

**Body protection:** Protective suit

Protective measures: The Personal Protective Equipment must be in accordance with EN standards: respirator EN 136, 140, 149; safety glasses EN 166;
protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, safety shoes EN-ISO 20345. Do not breathe vapours/dust. Take off all contaminated clothing immediately. Avoid contact with skin and eyes.

**Respiratory protection:** In the case of dust or aerosol formation use respirator with an approved filter. P3

**Thermal hazards:** Wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:** Avoid discharge into the environment.
This material and its container must be disposed of as hazardous waste.
According to local regulations, Federal and official regulations.

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance** liquid at 20°C and 101.3 kPa

**Melting point/range (°C):** -29.5 °C at 101.3 kPa

**Boiling point/range (°C):** 152 °C at 101.3 kPa

**Flash point (°C):** 61.97 °C at 1013 hPa

| | |
|---|---|
| **Self-ignition temperature:** | 315 °C at 1013 hPa |
| **Vapour pressure (25°C):** | 1.07 kPa at 20 °C |
| **Relative Density:** | 0.92 at 20°C |
| **Water solubility (g/l):** | 100000 mg/L at 25 °C |
| **n-Octanol/Water (log Po/w):** | Log Kow (Pow): 0.63 at 20 °C |
| **Viscosity:** | 15mPa.s at 20 °C. |
| **Surface tension:** | 30.29 mN/m at 16 °C |
| **Dissociation constant in water( pKa):** | The pKa of MEKO has been reported to be 12.45 at 24°C. |

**9.2. Other information:**

| | |
|---|---|
| **Flammabilty:** | non flammable |
| **Explosive properties :** | non explosive |
| **Oxidising properties :** | No Oxidising properties |
| **Granulometry :** | Not available |
| **Stability in organic solvents and identity of relevant degradation products :** | Not available<br>Not available |

## Section 10 Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity:** | The substance is stable under normal storage and handling conditions. |
| **10.2 Chemical stability:** | Stable. |
| **10.3 Possibility of hazardous reactions:** | No dangerous reactions known. |
| **10.4 Conditions to avoid:** | Reactions with strong acids and alkalies , Oxidizing agents |
| **10.5 Incompatible materials:** | Strong oxidizing agents, strong acids, strong bases, peroxides. |
| **10.6 Hazardous decomposition products:** | nitrogen oxides (NOx), Carbon oxides |

## Section 11 Toxicological information

**11.1 Toxicokinetics, metabolism and distribution**

Not available

**11.2 Information on toxicological effects**

| | |
|---|---|
| **Acute toxicity:** | |
| **LD50(Oral, Rat):** | ca. 2326 mg/kg bw (male) based on: test mat. |
| **LD50(Dermal, Rabbit):** | > 1000 mg/kg bw (male/female) |
| **LC50(Inhalation, Rat):** | > 4.83 mg/L air (analytical) (male/female) |
| **Skin corrosion/Irritation:** | Not classified |
| **Serious eye damage/irritation:** | Causes serious eye damage. |
| **Respiratory or skin sensitization:** | May cause an allergic skin reaction. |
| **Germ cell mutagenicity:** | Not classified |
| **Carcinogenicity:** | Suspected of causing cancer< inhalation exposure> |
| **Reproductive toxicity:** | Not classified |
| **STOT- single exposure:** | Not classified |
| **STOT-repeated exposure:** | Not classified |
| **Aspiration hazard:** | Not classified |

## Section 12 Ecological information

**Toxicity:**

| Acute toxicity | | Time | Species | Method | Remarks |
|---|---|---|---|---|---|
| LC50 | > 100 mg/L | 96h | Fish | OECD 203 | 1 (reliable without restriction) |
| EC50 | ca. 201 mg/L | 48h | Daphnia | OECD 202 | 1 (reliable without restriction) |
| EC50 | 11.8 mg/L based on: growth rate<br>ca. 6.09mg/L based on: biomass | 72h | Algae | OECD 201 | 1 (reliable without restriction) |

**Persistence and degradability:** Biodegradation in water: inherently biodegradable

**Bioaccumulative potential:** Not available

**Mobility in soil:** Not available

**Results of PBT&vPvB assessment:** The substance is not a PBT / vPvB substance.

**Other adverse effects:** Not available

## Section 13 Disposal considerations

**13.1 Waste treatment methods**

Dispose of the waste according to applicable local, state and federal regulations. Do not dispose of with household waste.

**13.2 Product / Packaging disposal:**

Product: Dispose according to legal requirements.
Packaging: Legal requirements are to be considered in regard of reuse or disposal of used packaging materials.

## Section 14 Transport information

| | Land transport(ADR/RID) | Sea transport (IMDG) | Air transport (ICAO/IATA) |
|---|---|---|---|
| **UN-Number:** | Not regulated | Not regulated | Not regulated |
| **UN Proper shipping name:** | Not regulated | Not regulated | Not regulated |
| **Transport hazard Class:** | Not regulated | Not regulated | Not regulated |
| **Packaging group:** | Not regulated | Not regulated | Not regulated |
| **Environmental hazards:** | No | No | No |
| **Special precautions for user:** | See section 2.2 | See section 2.2 | See section 2.2 |
| **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** | Not regulated | Not regulated | Not regulated |

## Section 15 Regulation information

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

**Relevant information regarding authorization:** Not applicable.

**Relevant information regarding restriction:** Not applicable.

**Other EU regulations:** Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

**Other National regulations:** Not applicable

**Chemical Safety Assessment has been carried out?** YES [X] NO [ ]

## Section 16 Other information

### 16.1 Indication of changes

Version 1.0 Amended by EU No 453/2010

### 16.2 Training instructions:

Not applicable.

### 16.3 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

### 16.4 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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