

**Safety Data Sheet**

according to UK REACH Regulation

**Bohle Metal Primer**

Revision date: 07.07.2023

Product code: BO5209488

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**

Bohle Metal Primer

**Further trade names**

BO 5209487, 500 ml  
 BO 5209488, 100 ml  
 BO 5209489, 1000 ml  
 BO 52094895, 5000 ml

UFI: PS9K-RGDG-M3EG-RJ3E

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

metal adhesion promoter

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

|                         |                   |                              |
|-------------------------|-------------------|------------------------------|
| Company name:           | BOHLE AG          |                              |
| Street:                 | Dieselstr. 10     |                              |
| Place:                  | D-42781 Haan      |                              |
| Telephone:              | +49 2129 5568-0   | Telefax: +49 2129 5568-282   |
| e-mail:                 | info@bohle.de     |                              |
| Contact person:         | Dr. Martin Schade | Telephone: +49 2129 5568-300 |
| e-mail:                 | MSDS@bohle.de     |                              |
| Internet:               | www.bohle.com     |                              |
| Responsible Department: | Chemie            |                              |

**1.4. Emergency telephone number:** Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463

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

Flam. Liq. 2; H225  
 Skin Irrit. 2; H315  
 Eye Irrit. 2; H319  
 STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**
**GB CLP Regulation**
**Hazard components for labelling**

propan-2-ol; isopropyl alcohol; isopropanol

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

|      |                                     |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation.             |
| H319 | Causes serious eye irritation.      |
| H336 | May cause drowsiness or dizziness.  |

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**Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P235 Keep cool.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.

**Labelling of packages where the contents do not exceed 125 ml**
**Signal word:** Danger

**Pictograms:**

**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Hazardous components**

| CAS No     | Chemical name   |              |                  | Quantity |
|------------|---|--------------|------------------|----------|
|            | EC No   | Index No     | REACH No         |          |
|            | Classification (GB CLP Regulation)                    |              |                  |          |
| 67-63-0    | propan-2-ol; isopropyl alcohol; isopropanol           |              |                  | >95 %    |
|            | 200-661-7   | 603-117-00-0 | 01-2119457558-25 |          |
|            | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 |              |                  |          |
| 24599-21-1 | 2-(phosphonoxy)ethyl methacrylate                     |              |                  | 1-<3 %   |
|            | 246-342-6   |              |                  |          |
|            | Skin Corr. 1B, Eye Dam. 1; H314 H318                  |              |                  |          |
| 32435-46-4 | Bis(methacryloyloxyethyl) hydrogen phosphate          |              |                  | 1-<3 %   |
|            | 251-040-2   |              |                  |          |
|            | Skin Irrit. 2, Eye Irrit. 2; H315 H319                |              |                  |          |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No     | EC No   | Chemical name                                | Quantity |
|------------|---|--|----------|
|            | Specific Conc. Limits, M-factors and ATE  |  |          |
| 67-63-0    | 200-661-7   | propan-2-ol; isopropyl alcohol; isopropanol  | >95 %    |
|            | inhalation: LC50 = 30 mg/l (vapours); dermal: LD50 = 13400 mg/kg; oral: LD50 = 4570 mg/kg |  |          |
| 24599-21-1 | 246-342-6   | 2-(phosphonoxy)ethyl methacrylate            | 1-<3 %   |
|            | oral: LD50 = >2000 mg/kg  |  |          |
| 32435-46-4 | 251-040-2   | Bis(methacryloyloxyethyl) hydrogen phosphate | 1-<3 %   |
|            | oral: LD50 = >2000 mg/kg  |  |          |

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

Take off immediately all contaminated clothing.

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**After inhalation**

Move to fresh air. Consult a physician after significant exposure. If victim is unconscious but breathing: Victim to lie down in the recovery position, cover and keep him warm. Call a physician immediately.

**After contact with skin**

Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

**After contact with eyes**

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

If eye irritation persists, consult a specialist.

**After ingestion**

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Give sodium sulfate as laxative (1 tablespoon in 1 glass of water) with plenty of activated coal.

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

No information available.

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

No information available.

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

water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media**

high volume water jet

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

In use may form flammable/explosive vapour-air mixture.

Fire may cause evolution of: Carbon monoxide, Carbon dioxide )

**5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

**Additional information**

Use water spray to cool unopened containers.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Use personal protective equipment. Keep people away from and upwind of spill/leak.

Ensure adequate ventilation.

Keep away from heat and sources of ignition.

Avoid contact with skin and eyes. Do not breathe vapour.

**6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Local authorities should be advised if significant spillages cannot be contained.

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

Provide adequate ventilation. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect in closed and suitable containers for disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

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Personal protection equipment: see section 8

Disposal: see section 13

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

Provide adequate ventilation as well as local exhaust at critical locations.

Provide room air exhaust at ground level.

Avoid formation of aerosol. Do not breathe vapour/aerosol.

Avoid contact with the skin and the eyes.

**Advice on protection against fire and explosion**

Take precautionary measures against static discharges. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Keep away from heat and sources of ignition. Do not smoke.

**Advice on general occupational hygiene**

Avoid contact with skin, eyes and clothing. Provide adequate ventilation. Take off all contaminated clothing immediately. Keep away from food, drink and animal feedingstuffs. When using do not eat or drink. Do not smoke. Wash hands before breaks and at the end of workday.

**7.2. Conditions for safe storage, including any incompatibilities**
**Requirements for storage rooms and vessels**

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

**SECTION 8: Exposure controls/personal protection**
**8.1. Control parameters**
**Exposure limits (EH40)**

| CAS No  | Substance   | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|---------|-------------|-----|-------------------|-----------|---------------|--------|
| 67-63-0 | Propan-2-ol | 400 | 999               |           | TWA (8 h)     | WEL    |
|         |             | 500 | 1250              |           | STEL (15 min) | WEL    |

**DNEL/DMEL values**

| CAS No  | Substance                                   | Exposure route | Effect   | Value                 |
|---------|---|----------------|----------|-----------------------|
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol |                |          |                       |
|         | Consumer DNEL, long-term                    | oral           | systemic | 26 mg/kg bw/day       |
|         | Consumer DNEL, long-term                    | dermal         | systemic | 319 mg/kg bw/day      |
|         | Worker DNEL, long-term                      | dermal         | systemic | 888 mg/kg bw/day      |
|         | Consumer DNEL, long-term                    | inhalation     | systemic | 89 mg/m <sup>3</sup>  |
|         | Worker DNEL, long-term                      | inhalation     | systemic | 500 mg/m <sup>3</sup> |

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**PNEC values**

| CAS No   | Substance                                   |            |
|--|---|------------|
| Environmental compartment                        |   | Value      |
| 67-63-0  | propan-2-ol; isopropyl alcohol; isopropanol |            |
| Freshwater                                       |   | 140,9 mg/l |
| Freshwater (intermittent releases)               |   | 140,9 mg/l |
| Marine water                                     |   | 140,9 mg/l |
| Freshwater sediment                              |   | 552 mg/kg  |
| Marine sediment                                  |   | 552 mg/kg  |
| Micro-organisms in sewage treatment plants (STP) |   | 2251 mg/l  |
| Soil   |   | 28 mg/kg   |

**8.2. Exposure controls**
**Appropriate engineering controls**

Even in case of a full release, due to the small amount of substances present, it is not expected that exposure limits will be reached. However it is the duty of the user to verify this and follow given exposure limits at the workplace.

**Individual protection measures, such as personal protective equipment**
**Eye/face protection**

safety glasses with side-shields conforming to EN166

**Hand protection**

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Glove material: Butyl caoutchouc (butyl rubber)  $\geq 0,5\text{mm}$ , NBR (Nitrile rubber)  $\geq 0,35\text{mm}$

Breakthrough time:  $\geq 480$  min.

**Skin protection**

impervious clothing

**Respiratory protection**

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

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

|                 |           |
|-----------------|-----------|
| Physical state: | liquid    |
| Colour:         | clear     |
| Odour:          | alcoholic |

**Test method**

|   |           |
|---|-----------|
| Melting point/freezing point:                             | -89,5 °C  |
| Boiling point or initial boiling point and boiling range: | 82 °C     |
| Lower explosion limits:                                   | 2 vol. %  |
| Upper explosion limits:                                   | 12 vol. % |
| Flash point:  | 12 °C     |
| Auto-ignition temperature:                                | 425 °C    |
| pH-Value (at 20 °C):                                      | ca. 3     |
| Water solubility:<br>(at 20 °C)                           | soluble   |
| Vapour pressure:<br>(at 20 °C)                            | 48 hPa    |

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Density (at 20 °C):

 0,79 g/cm<sup>3</sup>
**9.2. Other information**
**Information with regard to physical hazard classes**

Explosive properties

In use, may form flammable/explosive vapour-air mixture.

Self-ignition temperature

not auto-flammable

**Other safety characteristics**

Solvent content:

96 %

Viscosity / dynamic:

2,4 mPa·s

(at 20 °C)

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

None under normal processing.

**10.2. Chemical stability**

No decomposition if used as directed.

**10.3. Possibility of hazardous reactions**

Vapours may form explosive mixture with air.

**10.4. Conditions to avoid**

Keep away from heat and sources of ignition.

Take action to prevent static discharges.

**10.5. Incompatible materials**

strong acids and oxidizing agents

**10.6. Hazardous decomposition products**

None known.

**SECTION 11: Toxicological information**
**11.1. Information on hazard classes as defined in GB CLP Regulation**
**Acute toxicity**

| CAS No     | Chemical name                                |               |         |        |        |
|------------|--|---------------|---------|--------|--------|
|            | Exposure route                               | Dose          | Species | Source | Method |
| 67-63-0    | propan-2-ol; isopropyl alcohol; isopropanol  |               |         |        |        |
|            | oral   | LD50<br>mg/kg | 4570    | Rat    |        |
|            | dermal                                       | LD50<br>mg/kg | 13400   | Rabbit |        |
|            | inhalation (4 h) vapour                      | LC50          | 30 mg/l | Rat    |        |
| 24599-21-1 | 2-(phosphonoxy)ethyl methacrylate            |               |         |        |        |
|            | oral   | LD50<br>mg/kg | >2000   | Rat    |        |
| 32435-46-4 | Bis(methacryloyloxyethyl) hydrogen phosphate |               |         |        |        |
|            | oral   | LD50<br>mg/kg | >2000   | Rat    |        |

**STOT-repeated exposure**

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Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effect, such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

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

| CAS No  | Chemical name                               |               |           |         |   |        |
|---------|---|---------------|-----------|---------|---|--------|
|         | Aquatic toxicity                            | Dose          | [h]   [d] | Species | Source                                  | Method |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol |               |           |         |   |        |
|         | Acute fish toxicity                         | LC50<br>mg/l  | 9640      | 96 h    | Pimephales promelas<br>(fathead minnow) |        |
|         | Acute algae toxicity                        | ErC50<br>mg/l | >2000     | 72 h    | Desmodesmus<br>subspicatus              |        |

**12.2. Persistence and degradability**

Readily biodegradable, according to appropriate OECD test.

**12.3. Bioaccumulative potential**
**Partition coefficient n-octanol/water**

| CAS No  | Chemical name                               | Log Pow |
|---------|---|---------|
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | -0,16   |

**12.4. Mobility in soil**

The product evaporates readily.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Further information**

Water hazard class 1: slightly water endangering

Do not let product enter drains.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Disposal recommendations**

In accordance with local and national regulations.

**List of Wastes Code - residues/unused products**

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

**List of Wastes Code - used product**

140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08); waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent mixtures; hazardous waste

**List of Wastes Code - contaminated packaging**

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150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

**Contaminated packaging**

Non-contaminated packages may be recycled.

 Contaminated packages must be completely emptied and can be re-used following proper cleaning.  
 cleaning agent : Water

**SECTION 14: Transport information**
**Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 1219  
**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Classification code: F1  
 Special Provisions: 601  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 33  
 Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 1219  
**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Classification code: F1  
 Special Provisions: 601  
 Limited quantity: 1 L  
 Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1219  
**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-E, S-D



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**Air transport (ICAO-TI/IATA-DGR)**

|  |             |
|--|-------------|
| <b>14.1. UN number or ID number:</b>     | UN 1219     |
| <b>14.2. UN proper shipping name:</b>    | Isopropanol |
| <b>14.3. Transport hazard class(es):</b> | 3           |
| <b>14.4. Packing group:</b>              | II          |
| Hazard label:                            | 3           |



|  |      |      |
|--|------|------|
| Special Provisions:                    | A180 |      |
| Limited quantity Passenger:            | 1 L  |      |
| Passenger LQ:                          | Y341 |      |
| Excepted quantity:                     | E2   |      |
| IATA-packing instructions - Passenger: |      | 353  |
| IATA-max. quantity - Passenger:        |      | 5 L  |
| IATA-packing instructions - Cargo:     |      | 364  |
| IATA-max. quantity - Cargo:            |      | 60 L |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

none

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

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

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2004/42/EC (VOC): 96 % (758 g/l)

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

**SECTION 16: Other information**
**Classification for mixtures and used evaluation method according to GB CLP Regulation**

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Flam. Liq. 2; H225  | On basis of test data    |
| Skin Irrit. 2; H315 | Calculation method       |
| Eye Irrit. 2; H319  | Calculation method       |
| STOT SE 3; H336     | Calculation method       |

**Relevant H and EUH statements (number and full text)**

|      |  |
|------|--|
| H225 | Highly flammable liquid and vapour.      |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation.                  |

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|      |                                    |
|------|------------------------------------|
| H318 | Causes serious eye damage.         |
| H319 | Causes serious eye irritation.     |
| H336 | May cause drowsiness or dizziness. |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*