

according to 29 CFR 1910.1200(g)

Revision date: 05.03.2020

Bohle Metal Primer

Product code: BO5209488

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1. Identification**Product identifier**

Bohle Metal Primer

Further trade names

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

Recommended use of the chemical and restrictions on use**Use of the substance/mixture**

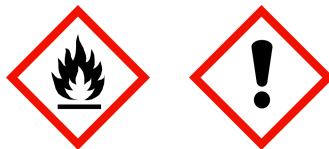
metal adhesion promoter

Details of the supplier of the safety data sheet

Company name:	BOHLE AG	
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Place:	D-42781 Haan	
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Responsible Department:	Chemie	

Emergency phone number: Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Flammable liquids: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2A
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)

Label elements**29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

Highly flammable liquid and vapor
Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep cool.
Wear protective gloves/protective clothing/eye protection/face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

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If eye irritation persists: Get medical advice/attention.

3. Composition/information on ingredients**Mixtures****Hazardous components**

CAS No	Components	Quantity
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	96.3 %
24599-21-1	2-(phosphonooxy)ethyl methacrylate	1.8 %
32435-46-4	Bis(methacryloyloxyethyl) hydrogen phosphate	1.8 %

4. First-aid measures**Description of first aid measures****General information**

Take off immediately all contaminated clothing.

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 eyesIF 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.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

No information available.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO₂)**Unsuitable extinguishing media**

high volume water jet

Specific hazards arising from the chemicalIn use may form flammable/explosive vapour-air mixture.
Fire may cause evolution of: Carbon monoxide, Carbon dioxide)**Special protective equipment and precautions for fire-fighters**

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

Additional informationUse water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.**6. Accidental release measures**

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Personal precautions, protective equipment and emergency procedures

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.

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.

Methods and material for containment and cleaning up

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.

Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

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

Provide adequate ventilation as well as local exhaustion 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.

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

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

8. Exposure controls/personal protection**Control parameters****Exposure limits**

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
67-63-0	Isopropyl alcohol	400	980		TWA (8 h)	PEL
		400	980		TWA (8 h)	REL
		500	1225		STEL (15 min)	REL

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.

Protective and hygiene measures

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

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smoke. Wash hands before breaks and at the end of workday.

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 (maximum wearing time) $\geq 480\text{ min}$.

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.

9. Physical and chemical properties**Information on basic physical and chemical properties**

Physical state:	liquid
Color:	clear
Odor:	alcoholic

Test method

pH-Value (at 20 °C):	ca. 3
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Changes in the physical state

Melting point/freezing point:	-89,5 °C
Initial boiling point and boiling range:	82 °C
Flash point:	12 °C

Explosive properties

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

Lower explosion limits:	2 vol. %
Upper explosion limits:	12 vol. %
Ignition temperature:	425 °C

Auto-ignition temperature

not auto-flammable

Vapor pressure: (at 20 °C)	48 hPa
Density (at 20 °C):	0,79 g/cm ³
Water solubility: (at 20 °C)	soluble
Viscosity / dynamic: (at 20 °C)	2,4 mPa·s
Solvent content:	96 %

Other information**10. Stability and reactivity****Reactivity**

None under normal processing.

Chemical stability

Stability:	Stable
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No decomposition if used as directed.

Possibility of hazardous reactions

Hazardous reactions: May occur
 Vapours may form explosive mixture with air.

Conditions to avoid

Keep away from heat and sources of ignition.
 Take action to prevent static discharges.

Incompatible materials

strong acids and oxidizing agents

Hazardous decomposition products

None known.

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

Specific target organ toxicity (STOT) - repeated exposure

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.

Carcinogenicity (OSHA): No ingredient of this mixture is listed.
 Carcinogenicity (IARC): Isopropyl alcohol (CAS 67-63-0) is listed in group 3.
 Carcinogenicity (NTP): No ingredient of this mixture is listed.

12. Ecological information

Persistence and degradability

Readily biodegradable, according to appropriate OECD test.

Mobility in soil

The product evaporates readily.

Further information

Water hazard class (WGK) 1: slightly water endangering
 Do not let product enter drains.

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13. Disposal considerations

Waste treatment methods

Disposal recommendations

In accordance with local and national regulations.

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

14. Transport information

US DOT 49 CFR 172.101

UN/ID number: UN 1219
Proper shipping name: Isopropyl alcohol
Transport hazard class(es): 3
Packing group: II
 Hazard label: 3



Marine transport (IMDG)

UN number: UN 1219
UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
Transport hazard class(es): 3
Packing group: II
 Hazard label: 3



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

Air transport (ICAO-TI/IATA-DGR)

UN number: UN 1219
UN proper shipping name: Isopropanol
Transport hazard class(es): 3
Packing group: II
 Hazard label: 3



Special Provisions: A180
 Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2

IATA-packing instructions - Passenger: 353

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IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

none

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

not relevant

15. Regulatory information**U.S. Regulations****National regulatory information**

SARA Section 311/312 Hazards:

Isopropyl alcohol (mfg-strong acid process) (67-63-0): Fire hazard, Immediate (acute) health hazard

2-(phosphonoxy)ethyl methacrylate (24599-21-1): Immediate (acute) health hazard

Bis(methacryloyloxyethyl) hydrogen phosphate (32435-46-4): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Isopropyl alcohol (mfg-strong acid process) (67-63-0): De minimis limit = 1.0 %, Reportable threshold = Standard

State Regulations**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information**Hazardous Materials Information Label (HMIS)**

Health:	1
Flammability:	3
Physical Hazard:	0

NFPA Hazard Ratings

Health:	1
Flammability:	3
Reactivity:	0
Unique Hazard:	

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**Other data**

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.

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