Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bohle Metal Primer

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

Regulation (EC) No 1272/2008

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

Regulation (EC) No 1272/2008

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.

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 (Regulation (EC) No 1272/2008)			
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-(phosphonooxy)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-(phosphonooxy)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.

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 (CO2)

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

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 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.

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

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
67-63-0	Isopropyl alcohol	200	-		TWA (8 h)	
		400	-		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
67-63-0	2-Propanol	Acetone	40 mg/L	Urine	End of shift at end of workweek

DNEL/DMEL values

CAS No	Substance			
DNEL type		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/m³
Worker DNEL, long-term		inhalation	systemic	500 mg/m³

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) >=0,5mm, NBR (Nitrile rubber) >=0,35mm
Breakthrough time: >=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: (at 20 °C)	soluble	
Vapour pressure: (at 20 °C)	48 hPa	

Density (at 20 °C): 0,79 g/cm³

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 Regulation (EC) No 1272/2008

Acute toxicity

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

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.

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 mg/l	9640	96 h	Pimephales promelas (fathead minnow)		
	Acute algae toxicity	ErC50 mg/l	>2000	72 h	Desmodesmus 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 REACH, annex XIII.
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

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

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1219
14.2. UN proper shipping name:	Isopropanol
14.3. Transport hazard class(es):	3
14.4. 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
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 Regulation (EC) No 1272/2008 [CLP]

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.

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.

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