



**Safety Data Sheet
acc. to OSHA HCS**

Printing date 11/15/2022

Reviewed on 11/15/2022

1 Identification

· **Product identifier**

· **Trade name:** **iBOND Etch 35 Fluid**

· -

· **Application of the substance / the mixture** dental etching agent

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Kulzer GmbH

Leipziger Straße 2, 63450 Hanau (Germany)

Tel.: +49 (0)800 4372522

· **Information department:**

Tel. +1 (800) 431-1785 Fax: +1 (800) 522-1545

e-mail: customer.servicehkna@kulzer-dental.com

· **Emergency telephone number:**

Emergency CONTACT (24-Hour-Number)

ID 105860: (domestic) 1 800 535 5053 or international (001) 352 323 3500

2 Hazard(s) identification

· **Classification of the substance or mixture**

Corrosive to Metals 1 H290 May be corrosive to metals.

Skin Corrosion 1B H314 Causes severe skin burns and eye damage.

Eye Damage 1 H318 Causes serious eye damage.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05

· **Signal word** Danger

· **Hazard-determining components of labeling:**

orthophosphoric acid

· **Hazard statements**

May be corrosive to metals.

Causes severe skin burns and eye damage.

· **Precautionary statements**

Keep only in original container.

Wear protective gloves / eye protection.

Wear protective clothing.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

· **Classification system**

· **NFPA ratings for USA (scale 0-4)**



Health = 3

Fire = 0

Reactivity = 0

(Contd. on page 2)

US



**Safety Data Sheet
acc. to OSHA HCS**

Printing date 11/15/2022

Reviewed on 11/15/2022

Trade name: iBOND Etch 35 Fluid

· HMIS-Ratings (Scale 0-4)

(Contd. of page 1)

HEALTH	*3	Health = *3
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** -

· Dangerous components:

7664-38-2	orthophosphoric acid Corrosive to Metals 1, H290; Skin Corrosion 1B, H314; Eye Damage 1, H318 Acute Toxicity - Oral 4, H302 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	25-50%
-----------	--	--------

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· Description of first aid measures

- **General information** Immediately remove any clothing soiled by the product.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Information for doctor**
 - **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· Extinguishing media

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
 - **Protective equipment:** No special measures required.
- **Additional information** -



**Safety Data Sheet
acc. to OSHA HCS**

Printing date 11/15/2022

Reviewed on 11/15/2022

Trade name: iBOND Etch 35 Fluid

(Contd. of page 2)

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid binding material (diatomite, universal binders, for small amounts tissues).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 13 for disposal information.
See Section 8 for information on personal protection equipment.
-
- **Protective Action Criteria for Chemicals**

· PAC-1:		
7664-38-2	orthophosphoric acid	3 mg/m ³
9002-89-5	Polyvinylalkohol (vollverseift)	24 mg/m ³
· PAC-2:		
7664-38-2	orthophosphoric acid	30 mg/m ³
9002-89-5	Polyvinylalkohol (vollverseift)	270 mg/m ³
· PAC-3:		
7664-38-2	orthophosphoric acid	150 mg/m ³
9002-89-5	Polyvinylalkohol (vollverseift)	1,600 mg/m ³

7 Handling and storage

- **Handling**
 - **Precautions for safe handling**
Keep receptacles tightly sealed.
Please observe the additional instructions in the product's instructions for use.
 - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage**
 - **Requirements to be met by storerooms and receptacles:** No special requirements.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· Components with limit values that require monitoring at the workplace:	
7664-38-2 orthophosphoric acid	
PEL	1 mg/m ³
REL	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³

(Contd. on page 4)



**Safety Data Sheet
acc. to OSHA HCS**

Printing date 11/15/2022

Reviewed on 11/15/2022

Trade name: iBOND Etch 35 Fluid

(Contd. of page 3)

TLV Short-term value: 3 mg/m³
Long-term value: 1 mg/m³

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Natural rubber, NR

· **Eye protection:** Tightly sealed goggles.

· **Body protection:** Light weight protective clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Fluid
· **Color:** Red
· **Odor:** Odorless

· **pH-value at 20 °C (68 °F):** 0.3

· **Change in condition**

· **Melting point/Melting range:** undetermined
· **Boiling point/Boiling range:** 100 °C (212 °F)

· **Flash point:** Not applicable

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

· **Density at 20 °C (68 °F):** 1.23 g/cm³ (10.26435 lbs/gal)

(Contd. on page 5)



**Safety Data Sheet
acc. to OSHA HCS**

Printing date 11/15/2022

Reviewed on 11/15/2022

Trade name: iBOND Etch 35 Fluid

(Contd. of page 4)

· Solubility in / Miscibility with · Water:	Fully miscible
· Solvent content: · Water:	56.5 %
· Solids content:	4.1 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** none

11 Toxicological information

- **Information on toxicological effects**
· **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
7664-38-2 orthophosphoric acid		
Oral	LD50	1,530 mg/kg (rat)
Dermal	LD50	2,740 mg/kg (can)
Inhalative	LC50/4 h	>850 mg/l (rat)

- **Primary irritant effect:**
 - **on the skin:** Caustic effect on skin and mucous membranes.
 - **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· Carcinogenic categories		
· IARC (International Agency for Research on Cancer)		
9002-89-5	Polyvinylalkohol (vollverseift)	3

· **NTP (National Toxicology Program)**
None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

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

12 Ecological information

- **Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

(Contd. on page 6)



Safety Data Sheet
acc. to OSHA HCS

Printing date 11/15/2022

Reviewed on 11/15/2022

Trade name: iBOND Etch 35 Fluid

(Contd. of page 5)

- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.


Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.
 - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
 - **DOT** UN1805
 - **ADR, IMDG, IATA** 1805
- **UN proper shipping name**
 - **DOT** PHOSPHORIC ACID, SOLUTION
 - **ADR** 1805 PHOSPHORIC ACID, SOLUTION
 - **IMDG, IATA** PHOSPHORIC ACID SOLUTION
- **Transport hazard class(es)**
 - **DOT**

 - **Class** 8 Corrosive substances
 - **Label** 8

(Contd. on page 7)





Safety Data Sheet
acc. to OSHA HCS

Printing date 11/15/2022

Reviewed on 11/15/2022

Trade name: iBOND Etch 35 Fluid

(Contd. of page 6)

· ADR	
	
· Class	8 (C1) Corrosive substances
· Label	8
· IMDG, IATA	
	
· Class	8 Corrosive substances
· Label	8
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user Warning: Corrosive substances	
· Hazard identification number (Kemler code):	80
· EMS Number:	F-A,S-B
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.	
· Transport/Additional information: -	
· UN "Model Regulation": UN1805, Phosphoric acid solution, 8, III	

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

7664-38-2 orthophosphoric acid

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

(Contd. on page 8)



**Safety Data Sheet
acc. to OSHA HCS**

Printing date 11/15/2022

Reviewed on 11/15/2022

Trade name: iBOND Etch 35 Fluid

(Contd. of page 7)

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenicity categories**
· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.

· **Date of preparation / last revision** 11/15/2022

· **Abbreviations and acronyms:**

- ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Corrosive to Metals 1: Corrosive to metals – Category 1
- Acute Toxicity - Oral 4: Acute toxicity – Category 4
- Skin Corrosion 1B: Skin corrosion/irritation – Category 1B
- Eye Damage 1: Serious eye damage/eye irritation – Category 1

· * **Data compared to the previous version altered.**