Safety Data Sheet
according to HPR, Schedule 1

Printing date 04/26/2017 *Version number 15* *Reviewed on 04/26/2017*

1 Identification

· **Product identifier**

· **Trade name:** **IPS Ceramic Etching Gel**

· **Application of the substance / the mixture** Etching gel for dental ceramic

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Ivoclar Vivadent Inc.
175 Pineview Drive, Amherst, N.Y. 14228
USA
Tel. +1 800 533 6825
Fax +1 716 691 2285

Ivoclar Vivadent Inc.
1-6600 Dixie Road
Mississauga, Ontario
L5T 2Y2
Canada
Phone: +1 905 670 8499
Fax: +1 905 670 3102

· **Information department:** Quality Assurance / Regulatory Affairs
· **Emergency telephone number:**
24 Hour Emergency Assistance:
Emergency-Call USA - Infotrac: 1-800-535-5053
Emergency-Call Canada - Canutec: 1-613-996-6666

General SDS Assistance:
US: 1-800-533-6825
Canada: 1-800-263-8182

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2 Hazard identification

· **Classification of the substance or mixture**

Acute Toxicity (Oral) - Category 3	H301	Toxic if swallowed.
Acute Toxicity (Dermal) – Category 2	H310	Fatal in contact with skin.
Acute Toxicity (Inhalation) - Category 3	H331	Toxic if inhaled.
Skin Corrosion - Category 1B	H314	Causes severe skin burns and eye damage.
Serious Eye Damage - Category 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 GHS06

· **Signal word** Danger

· **Hazard-determining components of labeling:**
hydrofluoric acid
· **Hazard statements**
Toxic if swallowed or if inhaled.

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Fatal in contact with skin.
Causes severe skin burns and eye damage.

· **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**

Health = 4
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 4
Fire = 0
Reactivity = 0

· **Other hazards**
Special safety notes for the use of IPS Ceramic Etching Gel: Hydrofluoric acid is highly toxic. It is strongly corrosive and does not cause any warning pain on the surface of skin and mucous membranes, but causes subsequent, painful in-depth effect.

3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** *Mixture of the substances listed below with nonhazardous additions.*

· **Dangerous components:**		
CAS: 7664-39-3	*hydrofluoric acid*	*1-5% w/w*

4 First aid measures

· **Description of first aid measures**
· **General information:** *Immediately remove any clothing soiled by the product.*
· **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Rub in Ca-gluconate solution or Ca-gluconate gel immediately.
Seek medical treatment.
· **After eye contact:**
Rinse opened eye for several minutes under running water.
Seek immediate medical advice.
· **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.*

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· **Indication of any immediate medical attention and special treatment needed**
Antidote: Ca-gluconate solution / Ca-gluconate gel

5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
· **Advice for firefighters**
· **Protective equipment:** Mouth respiratory protective device.
· **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Alternative: Add IPS Ceramic neutralizing powder and wait for 5 minutes.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Only adequately trained personnel should handle this product.
For use in dentistry only.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
· **Information about protection against explosions and fires:** Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
The hydrofluoric acid in IPS Ceramic Etching Gel attacks quartz, silicate and borate glasses, as well as sanitary ceramics and various metals and alloys (e.g. high-grade steel). Nickel, copper, polyethylene, PVC, and Teflon are resistant to hydrofluoric acid.
· **Information about storage in one common storage facility:** Store away from flammable substances.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from exposure to the light.
Protect from heat and direct sunlight.

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· **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:**	
CAS: 7664-39-3 hydrofluoric acid	
EL	Ceiling limit value: 2 ppm
EV	Long-term value: 0.5 ppm Ceiling limit value: 2 ppm as F

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

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Usual hygienic measures for dental practice and dental laboratories.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Remove contaminated clothing and wash before reuse.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
· **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
· **Recommended filter device for short term use:**
Combination filter E-P2
Combination filter B-P2
· **Protection of hands:**

Protective gloves

After use of gloves apply skin-cleaning agents and skin cosmetics.
· **Material of gloves**
Nitrile rubber, NBR
Butyl rubber, BR
Fluorocarbon rubber (Viton)
Chloroprene rubber, CR
PVC gloves
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **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.

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· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Viscous
Color:	Red
· **Odor:**	Pungent
· **Odor threshold:**	Not determined.
· **pH-value at 20 °C:**	2
· **Change in condition**	
Melting point/Melting range:	Not applicable.
Boiling point/Boiling range:	Undetermined.
· **Flash point:**	Not applicable.
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not determined.
· **Density at 20 °C:**	1.13 g/cm³
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability** Stable under normal handling and storage conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions**
Reacts with:
Ammonia

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Sulfuric acid
Reacts with alkali (lyes).
Reacts with organic substances.
Reacts with metals forming hydrogen.
· **Conditions to avoid** Keep away from heat and direct sunlight.
· **Incompatible materials:** Attacks materials containing glass and silicate.
· **Hazardous decomposition products:** None under normal conditions of storage and use.

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **on the skin:** Caustic effect on skin and mucous membranes.
· **on the eye:**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
· **Additional toxicological information:**
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

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

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
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.
· **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:**
Neutralize the etching gel! (see instructions for use)
To neutralize the diluted solution, add neutralizing powder and wait for 5 minutes. After 5 minutes, dispose of the neutralized solution under running water.
Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.

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· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**
· **DOT, TDG, IMDG, IATA** UN1790

· **UN proper shipping name**
· **DOT** Hydrofluoric acid
· **ADR/RID/ADN** 1790 Hydrofluoric acid
· **IMDG, IATA** HYDROFLUORIC ACID

· **Transport hazard class(es)**

· **DOT**

· **Class** 8 Corrosive substances
· **Label** 8, 6.1
· **TDG (Transport dangerous goods):**

· **Class** 8 (CT1) Corrosive substances
· **Label** 8+6.1

· **IMDG**

· **Class** 8 Corrosive substances
· **Label** 8/6.1

· **IATA**

· **Class** 8 Corrosive substances
· **Label** 8 (6.1)

· **Packing group**
· **DOT, TDG, IMDG, IATA** II

· **Environmental hazards:**
· **Marine pollutant:** No

· **Special precautions for user** Warning: Corrosive substances
· **Danger code (Kemler):** 86
· **EMS Number:** F-A,S-B

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· **Segregation groups**	Acids
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR/RID/ADN**	
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **UN "Model Regulation":**	UN1790, Hydrofluoric acid, 8 (6.1), II

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15 Regulatory information

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

· **Sara**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

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

· **Hazard pictograms**

GHS05 GHS06

· **Signal word** Danger

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

· **Hazard statements**
Toxic if swallowed or if inhaled.
Fatal in contact with skin.
Causes severe skin burns and eye damage.

· **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 04/26/2017 / 14
· **Abbreviations and acronyms:**
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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
· *** Data compared to the previous version altered.**