



**SAFETY DATA SHEET**  
**Regulation (EC) No 1907/2006 and 2015/8308 (REACH)**

(Revision: 3/18/2019; Supersedes: 10/12/2016)

**Section 1 Identification of the Substance/Preparation and of the Company/Undertaking.**

**1.1 Product Identifier**

**Product Type:** Silica preparation  
**Trade Names:** Special Liquid Concentrate

**1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**

**Product Use:** Investments for dental appliances  
**Uses Advised Against:** For professional use only.

**1.3 Details of the Supplier of the Substance or Mixture**

**Manufacturer:**

Whip Mix Corporation  
361 Farmington Avenue  
Louisville, Kentucky, USA 40209  
Emergency Telephone Number: (502) 634-1451  
Fax Number: (502) 634-4512

**EU Importer**

Whip Mix Europe GmbH  
Wißstrasse 26 – 28  
D – 44137 Dortmund  
Germany  
+49 (0) 231 / 567 70 8-0

**1.4 Emergency Telephone Number**

**Transportation Emergencies:** CHEMTREC 1(800) 424-9300 (U.S. and Canada)  
International Calls: 1- 703-527-3887 (Collect calls accepted)

**Medical Emergencies:**

**Other Product Information:** Infor@whipmix.com

**Section 2 Hazard Identification**

**2.1 Classification of the Substance or Mixture:**

**OSHA/WHMIS/GHS/CLP Classification (1272/2008):**

Health Hazards	Physical Hazards	Environmental Hazards
Specific Target Organ Toxicity Repeated Exposure Category 2 (H373)	Not Hazardous	Not Hazardous

**2.2 Label Elements:**

Warning!



H373 May cause damage to kidneys through prolonged or repeated exposure by ingestion.

**Precautionary Phrases:**

P260 Do not breathe mist, vapors or spray.  
P314 Get medical attention if you feel unwell.  
P501 Dispose of contents and container in accordance with local and national regulations.

**2.3 Other Hazards:** None

### Section 3 Composition/Information on Ingredients.

<u>Substance</u>	<u>CAS No. / EC Number</u>	<u>%</u>	<u>CLP/GHS Classification (1272/2008)</u>
Amorphous Silica	7631-86-9 / 231-545-4	40 – 70	Not hazardous
Ethylene Glycol	107-21-1 / 203-473-3	5 - 10	Acute Tox 4 H302 STOT RE 2 H373

See Section 16 for full text of GHS Classifications.

The exact percentage of composition has been withheld as a trade secret.

### Section 4 First-Aid Measures.

#### 4.1 Description of First Aid Measures

**Inhalation:** Remove exposed person to fresh air. If irritation or other symptoms persist, get medical attention.

**Eyes:** Flush with large quantities of water for several minutes, holding the eyelids apart. If irritation persists consult a physician.

**Skin:** No first aid is generally required. Wash skin with soap and water.

**Ingestion:** If swallowed, rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.

**4.2 Most important symptoms and effects, both acute and delayed:** May cause mild eye irritation. Inhalation of mists may cause mucous membrane and upper respiratory tract irritation. Ingestion may cause gastrointestinal irritation, nausea, dizziness, drowsiness, slurred speech and stupor. Prolonged over exposure to ethylene glycol may cause damage to the kidneys.

**4.3 Indication of any immediate medical attention and special treatment needed:** Immediate medical attention should not be required.

### Section 5 Fire-Fighting Measures.

**5.1 Extinguishing Media:** Use media appropriate for surrounding fire.

**5.2 Special Hazards Arising from the Substance or Mixture:** The product is not flammable or combustible.

**5.3 Advice for Fire-Fighters:** Firefighters should wear full emergency equipment and approved positive pressure self-contained breathing apparatus.

### Section 6 Accidental Release Measures.

**6.1 Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate protective clothing as described in Section 8. Wash hands after use. Avoid breathing vapors or mists.

**6.2 Environmental Precautions:** Report releases as required by local and national authorities.

**6.3 Methods and Material for Containment and Cleaning Up:** Collect with an inert material and place in appropriate container for disposal or reuse.

**6.4 Reference to Other Sections:** Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

### Section 7 Handling and Storage.

**7.1 Precautions for Safe Handling:** Avoid contact with eyes, skin and clothing. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

**7.2 Conditions for Safe Storage, Including any Incompatibilities:** Store in a cool, dry, well-ventilated area away from incompatible materials. Protect from physical damage.

#### 7.3 Specific end use(s):

**Industrial uses:** None identified

**Professional uses:** Investments for dental appliances.

## Section 8 Exposure Controls/Personal Protection

### 8.1 Control Parameters:

Amorphous Silica	80 mg/m <sup>3</sup> TWA PEL (total dust) % Silica 10 mg/m <sup>3</sup> TWA Belgium OEL 6 mg/m <sup>3</sup> TWA (Inhalable) UK WEL 2.4 mg/m <sup>3</sup> (Respirable) UK WEL
Ethylene Glycol	100 mg/m <sup>3</sup> Ceiling ACGIH TLV (as aerosol) 20 ppm TWA, 40 ppm STEL EU IOEL 10 ppm TWA, 20 ppm STEL Germany DFG (as aerosol and vapor) 20 ppm TWA, 40 ppm STEL UK WEL

Refer to local regulations for exposure limits not listed above.

### 8.2 Exposure Controls:

**Recommended Monitoring Procedures:** None.

**Appropriate engineering controls:** Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits.

#### Personal Protective Measurers

**Respiratory protection:** None normally required. If the exposure levels are exceeded and irritation is experienced an approved dust/mist respirator appropriate for the form and concentration of the contaminants should be used. In the USA refer to OSHA regulations, in the EU refer to EN Standards (EN 149 or 405). Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.

**Skin protection:** Wear impervious gloves such as nitrile to prevent skin contact. In the EU refer to EN 374.

**Eye protection:** Chemical safety goggles should be worn if contact is possible. In the EU refer to EN 166.

**Other:** Protective clothing as required to avoid prolonged skin contact.

## Section 9 Physical and Chemical Properties.

### 9.1 Information on basic Physical and Chemical Properties

**Appearance:** White Liquid

**Odor:** Odorless

**Odor threshold:** 60.3 mg/m<sup>3</sup> (ethylene glycol)

**Melting point/freezing point:** 32°F / 0°C

**Flash point:** Not applicable

**Flammability (solid, gas):** Not applicable

**Flammable limits: LEL:** Not applicable

**Vapor pressure:** 17 mmHg @ 20°C

**Relative density:** 1.20 g/mL at 20°C

**Partition coefficient: n-octanol/water:** Not available

**Decomposition temperature:** Not available

**Explosive Properties:** Not applicable

**pH:** 9.5-10.2

**Boiling point:** 212°F / 100°C

**Evaporation rate:** Not available

**UEL:** Not applicable

**Vapor density (air = 1):** Not available

**Solubility In Water:** Fully miscible

**Auto-ignition temperature:** Not applicable

**Viscosity:** Not applicable

**Oxidizing Properties:** Not applicable

### 9.2 Other Information: None available

## Section 10 Stability and Reactivity.

**10.1 Reactivity:** Not expected to react under normal conditions of use.

**10.2 Chemical stability:** Stable under normal conditions of use.

**10.3 Possibility of hazardous reactions:** None known.

**10.4 Conditions to avoid:** None known.

**10.5 Incompatible materials:** None known.

**10.6 Hazardous decomposition products:** Thermal decomposition may generate silicon oxides.

## Section 11 Toxicological Information.

### 11.1 Information on Toxicological Effects:

#### Potential Health Effects:

**Eyes:** May cause mild irritation with redness and tearing.

**Skin:** Prolonged skin contact may cause irritation and drying of the skin. May cause allergic skin reaction.

**Ingestion:** Large amounts may cause gastrointestinal irritation and nausea.

**Inhalation:** Inhalation of mists may cause irritation of the eyes, nose and upper respiratory tract. Symptoms include coughing, sneezing and difficulty in breathing.

**Chronic Health Effects:** Prolonged over exposure to ethylene glycol may cause damage to the kidneys.

**Carcinogenicity:** None of the components of this product are listed as carcinogens by OSHA, IARC or NTP.

**Skin Sensitization:** None of the components have been shown to cause skin or respiratory sensitization in animals or humans.

**Mutagenicity:** None of the components have been shown to cause mutagenicity.

**Reproductive Toxicity:** None of the component are classified as being toxic to reproduction. In a study comparing effects from high aerosol concentration by whole-body or nose-only exposure, it was shown that nose-only exposure resulted in maternal toxicity and developmental toxicity in with minimal evidence of teratogenicity, The no-effects concentration (based on maternal toxicity) was 500 mg/m<sup>3</sup>. In a further study in mice, no teratogenic effects could be produced when ethylene glycol was applied to the skin of pregnant mice over the period of organogenesis. The above observations suggest that ethylene glycol is to be regarded as an animal teratogen and there is currently no available information to suggest that ethylene glycol caused birth defects in humans.

#### Specific Target Organ Toxicity:

**Single Exposure:** None known.

**Repeated Exposure:** In a 16 week oral study, rats were administered 50, 150, 500 or 1000 mg/kg of ethylene glycol in their diet. After 16 weeks of exposure the renal toxicity was severe enough to impact the kidneys ability to process the ethylene glycol and eliminate it in urine. NOEL 150 mg/kg

**Aspiration Hazards:** Product viscosity does not meet the criteria for aspiration toxicity.

#### Acute Toxicity Data:

Amorphous Silica: Oral rat LD50 >5000 mg/kg, Inhalation rat LC0 >0.39 mg/L/4 hr., LD50, Dermal rabbit LD50 >2000 mg/kg

Ethylene Glycol: Oral rat LD50 7712 mg/kg; Inhalation rat LC50 >2.5 mg/L/6 hr Dermal rabbit LD50 >3500 mg/kg

## Section 12. Ecological Data.

### 12.1 Ecotoxicity:

Amorphous Silica: 96 hr. LC50 Danio rerio >10,000 mg/L, 24 hr. EC50 daphnia magna >1000 mg/L, 72 hr. EC50

Desmodesmus subspicatus >10000 mg/L

Ethylene glycol: 96 hr LC50 Pimephales promelas 72,860 mg/L, 48 hr EC50 daphnia magna >100 mg/L, 96 Hr EC50

Pseudokirchneriella subcapitata 6500-13,000 mg/L

**12.2 Persistence and degradability:** Ethylene glycol is readily biodegradable.

**12.3 Bioaccumulative potential:** Ethylene glycol has a BCF of 10 which suggest the potential for bioconcentration is low.

**12.4 Mobility in soil:** No data available

**12.5 Results of PBT and vPvB assessment:** Components do not meet the criteria of PBT or vPvB.

**12.6 Other adverse effects:** Not required.

## Section 13 Disposal Considerations.

**13.1 Waste Treatment Methods:** Dispose in accordance with all national and local regulations.

**Section 14. Transport Information.**

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT		Not Regulated			
Canadian TDG		Not Regulated			
EU ADR/RID		Not Regulated			
IMDG		Not Regulated			
IATA/ICAO		Not Regulated			

**14.6 Special precautions for User:** Not applicable


**14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Section 15 Regulatory Information.****15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture****US Regulations**

**SARA Section 313 (40 CFR 372):** This product contains the following toxic chemical(s) subject to reporting requirements of SARA 313: Ethylene Glycol 107-21-1 5-10%

**SARA Section 311/312 (40 CFR 370) Hazard Categories:** Refer to Section 2 for the OSHA Hazard Classification.

**Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):** Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for this product, based on the RQ for Ethylene Glycol (10% maximum) of 5,000 lbs., is 50,000 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

**California:**  **WARNING:** This product can expose you to ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**International Chemical Inventories**

**Australia:** All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

**Canadian Environmental Protection Act:** All of the components of this product are listed on the Canadian Domestic Substances List (DSL) or exempt.

**China:** All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

**European Union:** All the components in this product are listed on the EINECS inventory or exempt.

**Korea:** All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or exempt.

**Philippines:** All of the components of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) or exempt.

**United States:** All of the components of this product are listed on the US Toxic Substances Control Act (TSCA) inventory

**16. Other Information.**

HMIS Rating: Health 2\* Flammability 0 Reactivity 0

Hazard: 4-Severe; 3-Serious; 2-Moderate; 1-Slight; 0-Minimum

CLP/GHS Classification and H Phrases for Reference (See Section 3)

Acute Tox 4 Acute Toxicity Category 4

STOT RE 2 Specific Target Organ Toxicity Repeat Exposure Category 2

H302 Harmful if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

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Date: March 18, 2019	Date: