



SAFETY DATA SHEET

Regulation (EC) No 1907/2006 and 2020/878 (REACH)

Date Revised: 3/28/22; Supersedes: 4/23/20

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)

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
Skin Sensitization Category 1A (H317) Specific Target Organ Toxicity Repeated Exposure Category 2 (H373)	Not Hazardous	Not Hazardous

2.2 Label Elements:

Warning!



Contains: Ethylene glycol and 2-Methyl-2H-isothiazol-3-one

H317 May cause an allergic skin reaction

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

Prevention

P260 Do not breathe mist, vapors, or spray.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 If skin irritation or rash occurs: Get medical attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P314 Get medical attention if you feel unwell.

Disposal

P501 Dispose of contents and container in accordance with local and national regulations.

2.3 Other Hazards: None

Section 3 Composition/Information on Ingredients.

3.1 Substance: Not applicable

3.2 Mixture:

Substance	CAS No. / EC Number	%	CLP/GHS Classification (1272/2008)	ATE/ Specific Concentration limits/ M-Factor
Amorphous Silica (Substance with a Union workplace exposure limit)	7631-86-9 / 231-545-4	40 – 70	Not Classified	None
Ethylene Glycol	107-21-1 / 203-473-3	5 - 10	Acute Tox. 4 H302 STOT RE 2 H373	ATE Oral: 500 mg/kg (point estimate)
2-Methyl-2H-isothiazol-3-one	2682-20-4 / 220-239-6	<0.01	Acute Tox. 2 H330 Acute Tox. 3 H301, H311 Eye Dam. 1 H318 Skin Corr. 1B H314 Skin Sens. 1A H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 EUH071	ATE Oral: 120 mg/kg ATE Inhalation: 0.1 mg/L ATE Dermal: 242 mg/kg SCL: Skin Sens. 1: ≥0.002% Acute M-Factor: 10 Chronic M-Factor: 1

The specific identity and/or concentration of composition has been withheld as a trade secret.

See Section 16 for full text of GHS Classifications.

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, while holding the eyelids apart. If irritation persists consult a physician.

Skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention.

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. May cause an allergic skin reaction. 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 ³ TWA OSHA PEL % SiO ₂ 10 mg/m ³ TWA Belgium OEL 4 mg/m ³ TWA, Germany MAK (inhalable aerosol) 2.4 mg/m ³ TWA (respirable), 6 mg/m ³ TWA (inhalable) Ireland OEL 2.4 mg/m ³ TWA (respirable), 6 mg/m ³ TWA (inhalable) UK WEL
Ethylene Glycol	25 ppm TWA, 50 ppm STEL ACGIH TLV (as vapors) 10 mg/m ³ STEL (inhalable) ACGIH TLV (as aerosol) 20 ppm TWA, 40 ppm STEL EU IOEL 10 ppm TWA, 20 ppm STEL Germany DFG MAK (as aerosol and vapor) 20 ppm TWA, 40 ppm STEL UK WEL (as vapor) 10 ppm TWA, 40 ppm STEL Sweden OEL
2-Methyl-2H-isothiazol-3-one	0.2 mg/m ³ TWA, 0.4 mg/m ³ STEL (Inhalable) DFG MAK

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/Face 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:

Physical State: Liquid

Appearance: White Liquid

Color: White

Odor: Odorless

Odor threshold: Not available

Melting Point/Freezing Point: 32°F / 0°C

Boiling Point/Range: 212°F/ 100°C

pH: 8.5-9.5

Flash Point: Not flammable

Evaporation Rate: Not available

Vapor Pressure: 17 mmHg @ 20°C

Explosive Limits:

LEL: Not applicable **UEL:** Not applicable

Vapor Density: Not available

Relative Vapor Density (at 20°C): Not available

Specific Gravity: Not available

Density/Relative Density: 1.40 g/mL at 20°C

Solubility(ies): Fully miscible in water

Octanol/Water Partition Coefficient: Not available

Auto-ignition Temperature: Not applicable

Decomposition Temperature: Not available

Kinematic Viscosity: Not available

Particle Characteristics: Not applicable

Flammability (gas, liquid, solid): Not flammable

9.2.1 Information with regard to physical hazard classes: Not applicable

9.2.2 Other Safety Characteristics: Not applicable

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.

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

2-Methyl-2H-isothiazol-3-one: Oral rat LD50 120 mg/kg; Inhalation rat LC50 0.1 mg/L/4 hr

Dermal rat LD50 242 mg/kg

Skin Corrosion/Irritation: Based on the available data, the classification criteria are not met.

Serious Eye Damage/Irritation: Based on the available data, the classification criteria are not met.

Respiratory or Skin Sensitization: 2-Methyl-2H-isothiazol-3-one have been shown to cause skin sensitization in animals or humans. None of the components have been shown to cause respiratory sensitization in animals or humans.

Germ Cell Mutagenicity: Based on the available data, the classification criteria are not met.

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

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/m³. 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. Based on the available data, the classification criteria are not met.

Specific Target Organ Toxicity:

Single Exposure: Based on the available data, the classification criteria are not met.

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. Based on the available data, the classification criteria are not met.

Aspiration Hazards: Based on the available data, the classification criteria are not met.

11.2 Information on other hazards: Not applicable

11.2.1 Endocrine disrupting properties: Not applicable

11.2.2 Other information: Not applicable

Section 12. Ecological Data.

12.1 Toxicity:

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

2-Methyl-2H-isothiazol-3-one: 96 hr LC50 Oncorhynchus mykiss 4.77 mg/L, 48 hr EC50 daphnia magna 0.934 mg/L,
72 Hr EC50 Marine water algae 0.072 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 Endocrine Disrupting Properties: Not applicable

12.7 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 Maritime transport in bulk according to IMO instruments: Not applicable

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.

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

15.2 Chemical Safety Assessment: None required.

16. Other Information.

HMIS Rating: Health 2* Flammability 0 Physical Hazard 0
Hazard: 4-Severe; 3-Serious; 2-Moderate; 1-Slight; 0-Minimum
**Chronic health hazard*

Date Revised: March 28, 2022

SDS Revision History: Updated SDS format to comply with Reg (EU) 2020/878 and updated Section 8.

Supersedes Date: April 23, 2020

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

Acute Tox 2 - Acute Toxicity Category 2
Acute Tox 3 - Acute Toxicity Category 3
Acute Tox 4 - Acute Toxicity Category 4
Aquatic Acute 1 - Acute Aquatic Toxicity Category 1
Aquatic Chronic 1 - Chronic Aquatic Toxicity Category 1
Eye Dam. 1 - Eye Damage Category 1
Skin Corr. 1B - Skin Corrosion Category 1B
Skin Sens. 1A - Skin Sensitizer Category 1A
STOT RE 2 - Specific Target Organ Toxicity Repeat Exposure Category 2
H301 Toxic if swallowed.
H302 Harmful if swallowed.

H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H330 Fatal if inhaled
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects.
EUH071 Corrosive to the respiratory tract.

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Date: March 28, 2022	Date: