SECTION 1: IDENTIFICATION

Product identifier	**Opti-Thickener (Fumed Silica)**
Product code	Opti-Thickener
Chemical name	Synthetic amorphous (fumed / pyrogenic) silica; silicon dioxide
Other means of identification	CAS 112945-52-5 (synthetic amorphous silica); general silica CAS 7631-86-9 / EINECS 231-545-4. Champion Plastisol Thickener.
Recommended use	Rheology / viscosity-control and anti-settling thickening agent for plastisol inks, coatings and related products.
Restrictions on use	For industrial and professional use only.
Manufacturer / supplier	Champion Inks 200 S. Newman Street, Unit 4 & 5, Hackensack, NJ 07601, USA
Telephone / web	+1 (302) 667-6096 - www.championinks.com - web@championinks.com
Emergency telephone (24-hr)	**CHEMTREC** - USA / Canada: +1-800-424-9300 - International: +1-703-527-3887 CHEMTREC Contract / CCN863598

SECTION 2: HAZARD(S) IDENTIFICATION

OSHA HCS classification	**Not classified as hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).** This product does not meet the classification criteria; this SDS is provided for information.
Signal word	None
Pictograms	None
Hazard statements	None under OSHA HCS.
Precautionary (good practice)	P260 Do not breathe dust. P264 Wash thoroughly after handling. P280 Wear protective gloves and eye protection. Minimize dust generation and accumulation.
Response (good practice)	IF IN EYES: Rinse cautiously with water for several minutes. IF INHALED: Remove to fresh air. If irritation persists, get medical advice/attention.
Hazards not otherwise classified (HNOC)	Mechanically generated dust may cause transient irritation of the eyes, nose and throat. Non-combustible (no dust-explosion hazard).
Unknown acute toxicity	Not applicable (single substance).

*Important: this product is **synthetic amorphous** silica. It is NOT crystalline silica (quartz/cristobalite) and does not contain respirable crystalline silica; the OSHA respirable crystalline-silica standard (29 CFR 1910.1053; PEL 0.05 mg/m3) and the IARC Group 1 / Prop 65 crystalline-silica listings do NOT apply to this material.*

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Wt %	GHS classification
Synthetic amorphous (fumed) silica - silicon dioxide	112945-52-5	> 99.9	Not classified

Single substance. Regulatory information is commonly indexed under general silica CAS 7631-86-9 (EINECS 231-545-4). Contains no crystalline silica. Phthalate-free (contains no plasticizers).

SECTION 4: FIRST-AID MEASURES

Inhalation	Remove person to fresh air. If irritation of the nose/throat occurs and persists, get medical advice/attention.
Skin contact	Wash with soap and water. The material may have a drying effect on skin; use a moisturizer if needed.

Eye contact	Rinse cautiously with water for several minutes to flush out particulate. Remove contact lenses if present and easy to do; continue rinsing. If irritation persists, get medical attention.
Ingestion	Rinse mouth. Low ingestion hazard; get medical advice if you feel unwell.
Most important symptoms / effects	Mechanical irritation of eyes, nose and throat from dust. No specific systemic effects expected.
Immediate medical attention / special treatment	Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media	Non-combustible. Use extinguishing media appropriate to the surrounding fire.
Unsuitable extinguishing media	None.
Specific hazards	Silica is non-combustible and does not present a dust-explosion hazard.
Protection for firefighters	Use self-contained breathing apparatus (SCBA) and full gear appropriate to the surrounding fire.
Flash point	Not applicable (non-combustible inorganic solid).

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Avoid generating and breathing dust. Wear eye protection and a dust mask where dust is generated. Ensure adequate ventilation.
Environmental precautions	Avoid release of large quantities to drains or waterways; silica is inert but should not be discharged in bulk.
Containment and cleanup	Vacuum (HEPA) or carefully sweep up avoiding dust generation; dampen if practical. Place in suitable containers for disposal per Section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Handle to minimize dust generation and accumulation. Use local exhaust where dust is generated. Avoid breathing dust; wash after handling. The fine powder is light and can become airborne easily.
Conditions for safe storage	Store in closed containers in a dry area. Keep away from moisture (the product readily absorbs moisture). No special temperature requirements.
Incompatible materials	Hydrofluoric acid; strong bases (slow reaction). Otherwise chemically stable and inert.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Component (CAS)	Exposure limit
Synthetic amorphous silica (112945-52-5)	OSHA PEL 6 mg/m3 (total dust) / 20 mppcf (Table Z-3, amorphous silica). ACGIH: no specific TLV (treat as inhalable particulate, ~10 mg/m3). Manufacturer/EU guidance ~4 mg/m3 (TRGS 900).

Note: the respirable crystalline-silica limits (OSHA 0.05 mg/m3; ACGIH 0.025 mg/m3) do NOT apply - this is amorphous, not crystalline, silica.

Engineering controls	Provide local exhaust ventilation and good general ventilation to keep airborne dust below applicable limits. Minimize dust generation.
Respiratory protection	Where dust may exceed limits, use a NIOSH-approved particulate respirator (e.g., N95) per 29 CFR 1910.134.
Eye / face protection	Safety glasses with side shields or dust goggles.
Hand / skin protection	Gloves to minimize drying; standard work clothing.
General hygiene	Wash hands before eating, drinking or smoking. Do not eat or drink in dusty areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid (fine powder)	**Vapor pressure**	Not applicable
Color	White	**Vapor density**	Not applicable
Odor	Odorless	**Bulk density**	~40 - 120 g/L (low; fluffy powder)
Odor threshold	Not applicable	**Relative density (true)**	~2.2
pH	~3.6 - 4.5 (4% aqueous suspension)	**Solubility in water**	Insoluble (forms a colloidal dispersion)
Melting point	~1,600 - 1,700 deg C	**Partition coefficient (log Kow)**	Not applicable (inorganic)
Boiling point	~2,230 deg C	**Auto-ignition temperature**	Not applicable
Flash point	Not applicable (non-combustible)	**Decomposition temperature**	Not applicable
Evaporation rate	Not applicable	**Viscosity**	Not applicable (powder)
Flammability (solid, gas)	Non-combustible	**Particle characteristics**	Synthetic amorphous (fumed) silica: nanoscale primary particles strongly fused into aggregates/agglomerates; a respirable fraction can be present - control dust.
Explosive limits	Not applicable (no dust-explosion hazard)		

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Non-reactive / inert under normal conditions.
Chemical stability	Stable. Hygroscopic - absorbs moisture.
Possibility of hazardous reactions	None known.
Conditions to avoid	Moisture (caking); dust generation.
Incompatible materials	Hydrofluoric acid; strong bases (slow attack).
Hazardous decomposition products	None; thermally stable.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely routes of exposure	Inhalation of dust; eye and skin contact.
Acute toxicity	Very low. Oral LD50 > 5,000 mg/kg (rat). Not classified.
Skin / eye	May cause transient mechanical irritation and skin drying. Not a sensitizer.
Inhalation	Dust may cause transient irritation of the respiratory tract. Amorphous silica has not been associated with silicosis (a crystalline-silica disease).
Carcinogenicity	Synthetic amorphous silica: IARC Group 3 (not classifiable as to carcinogenicity); not listed by NTP or OSHA. Contains no crystalline silica (IARC Group 1).
Other endpoints	Not mutagenic, reproductive or STOT hazard at relevant exposures.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	Not classified as environmentally hazardous. Silica is inert and of low concern to aquatic organisms.
Persistence and degradability	Inorganic; not biodegradable but inert.
Bioaccumulative potential	Does not bioaccumulate.

Mobility in soil	Low; insoluble solid.
Other adverse effects	None known.

Note: OSHA does not enforce the content of Sections 12-15, but they are required to maintain the GHS 16-section order.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods	Dispose of in accordance with applicable local, state and federal regulations. This material is not a RCRA hazardous waste; verify under 40 CFR 261 if mixed with other materials.
Contaminated packaging	Empty containers may retain residual dust; handle to avoid dust. Dispose of or recycle per regulations.

SECTION 14: TRANSPORT INFORMATION

US DOT / IATA / IMDG	Not regulated as a dangerous good.
UN number / class / packing group	None / Not regulated / None
Special precautions	None known.

SECTION 15: REGULATORY INFORMATION

US TSCA inventory	Silicon dioxide is listed on the TSCA Inventory.
SARA 311/312 hazard categories	None (product not classified under OSHA HCS).
SARA 313 (EPCRA)	Not listed.
California Proposition 65	No Proposition 65-listed substances are present. The Prop 65 listing for crystalline silica (respirable airborne particles) does NOT apply - this product is amorphous silica and contains no crystalline silica.
State Right-to-Know	Silica / silicon dioxide may appear on state Right-to-Know lists (e.g., NJ, PA, MA) as an inert/nuisance dust.

Product stewardship & certifications

Phthalate-free	Yes. Champion Inks inks are formulated without ortho-phthalate plasticizers; plastisol inks use phthalate-free plasticizers such as DOTP (dioctyl terephthalate, CAS 6422-86-2) or adipate esters (e.g., dioctyl adipate). No ortho-phthalates restricted under CPSIA, REACH Annex XVII or California Proposition 65 are intentionally added.
California Proposition 65 compliance	Champion Inks manages its products for California Proposition 65 compliance. Where a product contains a listed substance above the applicable safe-harbor level, the required warning is provided in this Section 15; where none is present above safe-harbor levels, no warning is required.

SECTION 16: OTHER INFORMATION

Full text of hazard statements	None assigned (product not classified under OSHA HCS).
Hazard ratings	HMIS / NFPA: Health 1, Flammability 0, Physical 0 (dust nuisance) - confirm per facility assessment.
Prepared by	Champion Inks - Regulatory / EHS
Issue / revision date	November 24, 2026

Version	1.0 - First issue under the Champion Inks brand. House format per OSHA HCS-2024 / GHS Rev. 7.

Disclaimer: The information herein is believed to be accurate and is provided in good faith but without warranty of any kind. It relates only to the specific product designated and may not be valid for such product used in combination with any other materials or in any process. The user is responsible for determining suitability and for compliance with all applicable regulations.

End of Safety Data Sheet