

MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Manufacturer/Distributor : Kobo Products, Inc.
Address : 3474 South Clinton Avenue
South Plainfield, NJ 07080, USA
Emergency Telephone # : (908) 757-0033
Facsimile Number : (908) 757-0905
Trade Name : **ST-255**
INCI Name : Silica (And) Titanium Dioxide

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	EINECS #
Silica	7631-86-9	231-545-4
Titanium Dioxide	13463-67-7	236-675-5

SECTION 3: HAZARD IDENTIFICATION

Effects and Symptoms:

Effects of Overexposure : May cause mechanical irritation to eyes.
Medical Conditions Aggravated by Exposure : Persons with respiratory conditions may be at increased risk.
Primary Route(s) of Entry : Skin and eye contact.

Chronic (Cancer Info.) : Not listed as a carcinogen by IARC, NTP, Z List or OSHA.

Target Organs : Lung.

Medical Conditions Aggravated : Individuals with pre-existing respiratory conditions such as asthma or skin conditions such as dermatitis may be at greater risk from exposure to material.

SECTION 4: FIRST AID MEASURES

Emergency First Aid:

Eye Contact : Flush eyes with water for at least 15 min. See physician if irritation persists.
Skin Contact : Flush skin with water.
Inhalation : Remove to fresh air. If breathing is difficult give oxygen. See physician.
Ingestion : None needed for small amounts. For large amounts, if conscious, give water and call physician.
Do not induce vomiting.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point (Closed Cup) : N/A
Flammable Limits LEL/UEL % : N/A
Auto Ignition Temp : Non-flammable
Extinguishing Media : N/A
Special Fire Fighting Procedures : N/A
Unusual Fire and Explosion Hazards : Prevent the accumulation of air borne dust/dust cloud. May become highly charged with electricity.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions : Eye contact and excessive skin contact.
Environmental Precautions : Prevent material from contaminating soil or entering sewerage and drainage systems.
Spill response : Use appropriate NIOHS/MSHA approved respirator. Wear chemical gloves, goggles, and lab coat. Carefully contain spilled material. Deposit spilled material in appropriate waste container.

SECTION 7: HANDLING AND STORAGE

Handling : Use with adequate ventilation. Avoid contact with eyes. Wash thoroughly after handling and before mealtimes. Follow all MSDS and label precautions even after container is emptied since it may contain residual material.
Storage : Store containers closed in ambient and dry location.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION**Inhalation Standards (Silica)**TLV (US) = 10 mg/m³ total dust for particles not otherwise classified.PEL (US) = 6 mg/m³ for nuisance dust.MAK TRGS 900 (Germany) = 4 mg/m³ inhalable dust.OES (UK) = 6 mg/m³ total inhalable, 2.4 mg/m³ respirable dust.TLV (Australia) = 10 mg/m³ total dust containing no asbestos and < 1% crystalline silica.**Exposure Levels:**

<u>Component</u>	OSHA		ACGIH	
	<u>TWA</u>	<u>PEL</u>	<u>TWA</u>	<u>TLV</u>
TiO ₂	15 mg/m ³		10 mg/m ³	

Personal Protection:

Eye Protection	: Safety glasses with side shields or goggles
Skin Protection	: Rubber gloves, wash at meals and end of shifts
Respiratory Protection	: Use NIOSH/MSHA approved air-purifying respirator as needed to control exposure.
Ventilation	: Provide adequate general mechanical exhaust.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°C)	: >2000	Percent Volatile By Vol. (%)	: N/A
Freezing Point (°C)	: N/A	Vapor Density (Air=1)	: N/A
Melting Point (°C)	: >1700	Evaporation Rate (Buac=1)	: N/A
Vapor Pressure (mm hg)	: N/A	Solubility In Water	: Insoluble
Bulk Density (Kg/M3)	: N/A	Appearance & Odor	: Spherical white powder, odorless

SECTION 10: STABILITY AND REACTIVITY

Stable	: Yes
Hazardous Polymerization	: Will not occur
Conditions to Avoid	: Open flames and sparks, extreme heat, oxidizing materials.
Incompatibility	: Oxidizing materials and strong caustic materials can cause a reaction.
Hazardous Decomposition Products	: Incomplete combustion can form CO, CO ₂ , and dense smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

	<u>Amorphous Silica</u>	<u>Titanium Dioxide*</u>
Skin Irritation	: Primary Irritation Index: 0.0. Non-irritant.	Derma LD ₅₀ > 10 g/kg (rabbit)
Primary Eye Irritation	: No-irritant. Avg. Draize Scores: 0.0 after 48 hours.	No data
Acute Oral Toxicity	: Non-toxic, LD ₅₀ > 5 g/kg (rat)	Non-toxic, LD ₅₀ > 25 g/kg (rat)
Sensitization	: No data	No data
Inhalation LC ₅₀	: No data	>6.82 mg/L (4 hour)

*: Trochimowicz. et. Al., J. Appl. Tox. 8, 383-385 (1988)

Chronic Effects on Humans

CARCINOGENIC EFFECTS: Classified None by NIOSH [Titanium Dioxide]. Classified A4 (not classifiable for human or animal) by ACGIH. Classifiable Group 2B (Possibly carcinogenic to humans) by IARC [Titanium Dioxide].

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure to the substance at concentrations above exposure limits may cause respiratory damage.

Target Organs: lungs

Acute Effects on Humans May cause skin, eye, and respiratory irritation.

Sensitization

Repeated or prolonged exposure to the substance at concentrations above the exposure limits may cause respiratory tract and lung sensitization.

Carcinogenic Effects

This material is not known to cause cancer in animals or humans.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity : Not tested.
 Mobility : Not soluble in water, not mobile in soil.
 Persistence/Degradability : Not Applicable
 Bio-Accumulation : Not Applicable
 WGK Water Hazard Class : nwg (not water hazardous).

SECTION 13: DISPOSAL CONSIDERATIONS

Method of Disposal : Dispose of in accordance with all applicable federal, state, and local regulations. Material may be sent to an approved landfill or licensed treatment, storage, and disposal facility.
 Amorphous silica is not a special waste under UK Special Waste Regulations 1996. Dispose of in accordance with local regulations. These regulations implement EC Directive 91/689 and Decision 94/904.

EU: Waste code (EU) : See industry specific waste code. See European Waste Catalogue (75/442/EEC).

SECTION 14: TRANSPORT INFORMATION

DOT Classification : Not regulated
 TDG Classification : Not regulated
 IMO/IMDG Classification : Not regulated
 ICAO/IATA Classification : Not regulated

SECTION 15: REGULATORY INFORMATION

This product or its components are on the following inventories : European Inventory of Existing Commercial Chemicals
 Australia Inventory of Chemical Substances
 Japan Inventory of Existing & New Chemical Substances
 Canada DSL Inventory

SECTION 16: OTHER INFORMATION

Hazardous Material Information System (U.S.A.) [Ratings Key: 4= Highest hazard, 0= Lowest hazard]

Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	E

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By Neringa Kontrimiene

Note:

The statements made here are based upon technical data that Kobo Products Inc. believes to be reliable, are intended to describe the product with regard to necessary safety precautions. They do not guarantee special characteristics. This information is furnished without warranty, expressed or implied, except that it is accurate to the best of our current knowledge.