

SÜD-CHEMIE
Creating Performance Technology



MATERIAL SAFETY DATA SHEET

Nanofil® 9

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Nanofil® 9

GENERAL USE: Nanocomposite filler.

Manufacturer/Supplier

Süd-Chemie Inc.
Performance Additives
P.O. Box 32370
Louisville, KY 40232
Customer Service: 502-634-7500

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC : (800) 424 - 9300
Outside the US or Call Collect : 001 (703) 527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u>
organoclay	> 97	71011-24-0
Silica, quartz	< 3	14808-60-7

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: White or off-white powder.

IMMEDIATE CONCERNS: Poses little or no immediate hazard. Prolonged or excessive inhalation may cause respiratory tract irritation. Prolonged or repeated overexposure may cause lung damage.

POTENTIAL HEALTH EFFECTS

EYES: May cause mechanical irritation which can scratch the eye.

SKIN: Substance does not generally irritate and is only mildly irritating to the skin.

INGESTION: Ingestion of large quantities may cause stomach and intestinal distress.

INHALATION: Prolonged or repeated overexposure may cause lung damage. Prolonged or excessive inhalation may cause respiratory tract irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Redness, irritation, scratched cornea.

SKIN: Irritation, rash.

INGESTION: Upset stomach, intestinal distress.

INHALATION: Irritation of nose, throat and upper respiratory tract.

CARCINOGENICITY: This product contains crystalline silica which is known to cause cancer. Prolonged or repeated exposure to respirable dust may cause silicosis.

MEDICAL CONDITIONS AGGRAVATED: Breathing problems, skin problems.

ROUTES OF ENTRY: Inhalation, ingestion, eyes, skin.

TARGET ORGAN STATEMENT: Respiratory system, lungs, skin, eyes.

4. FIRST AID MEASURES

EYES: Flush eye(s) with water for 30 minutes. Lift upper and lower eyelid(s) occasionally. Get medical attention immediately.

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

INGESTION: Encourage fluid intake. Seek medical attention if symptoms develop or persist.

INHALATION: If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use extinguishing agent applicable to surrounding fire.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon and nitrogen.

EXPLOSION HAZARDS: Product does not normally present a fire or explosion hazard. However, dusts may be ignited by static discharge or flame especially if suspended in a dust-laden air cloud. Avoid generation of dusts. Avoid any condition that will suspend or float particles in the air. Normal precautions for flammable dusts should be followed.

FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus operated in pressure-demand mode, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: With shovel or scoop, place material into appropriate container.

LARGE SPILL: Use same methods described for small spills. Wear eye protection, long sleeves, long pants, gloves and protect against inhalation of dusts, mists or fumes. Place in appropriate containers for disposal.

GENERAL PROCEDURES: Do not use compressed air for clean-up.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Minimize dust generation and accumulation. Avoid breathing dust. Use with adequate ventilation. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

HANDLING: Take precautionary measures against static discharges.

STORAGE: Keep away from sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
		ppm	Mg/m³	ppm	Mg/m³
organoclay	TWA	[1]			
Silica, quartz	TWA	[2]		[3]	0.05

OSHA TABLE COMMENTS:

1. Exposure limits not established.
2. Total Dust = (30 mg/m3)/(%SiO2+2)
3. Respirable

ENGINEERING CONTROLS: If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields or goggles.

SKIN: Use of proper hygiene practices in the workplace is recommended.

RESPIRATORY: Wear NIOSH approved filtering face piece rated 100 or equivalent in the absence of proper environmental control. Type of respirator depends on level of exposure.

COMMENTS: All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is 5 mg/m3 for respirable fraction and 15 mg/m3 for total dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: None

COLOR: White or off-white

PERCENT VOLATILE: Less than 5%

MELTING POINT: Not Determined

SOLUBILITY IN WATER: Insoluble

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

11. TOXICOLOGICAL INFORMATION**ACUTE**

ORAL LD₅₀: > 5 gm/kg rodent - rat

INHALATION LC₅₀: > 200 mg/L

EYE EFFECTS: rabbit

Result: not irritant

Method: Draize Test

SKIN EFFECTS: rabbit

Result: not irritant

Method: Draize Test

SENSITIZATION: Buehler Test guinea pig

Result: not sensitizing

Method: OECD Guide-line 406

CARCINOGENICITY:

IARC: Crystalline silica. Classification: Group 1 "carcinogenic to humans".

NTP: The National Toxicology Program's Tenth Report on Carcinogens lists respirable crystalline silica as a "Known Human Carcinogen."

OSHA: Not listed.

GENERAL COMMENTS: This product has not been tested in animal experiments. The toxicological data has been taken

from products of similar composition.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: The following ecotoxicity data has been reported for similar products:

Toxicity to fish: Dose 100 mg/L; not toxic

Toxicity to algae: EbC50 (Sc. subspicatus); Dose >100 mg/L; Method: OECD Guide-line 201. ErC50 (Sc. Subspicatus); Dose >100 mg/L; Method: OECD Guide-line 201.

Toxicity to water organisms: EC50 (daphnia magna); Dose >100 mg/L; Method: OECD Guide-line 202, part 1

CHEMICAL FATE INFORMATION: The following persistence and degradability data has been reported for similar products:

Result: not biodegradable

2.5 percent

Exposure time 28 d

Method: OECD Guide-line 301 B

Product is of mineral origin.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES:

FIRE: NO PRESSURE GENERATING: NO REACTIVITY: NO ACUTE: YES CHRONIC: YES