

MSDS FOR NANOKEMOX GRADE



Kerala Minerals & Metals Ltd

MATERIAL SAFETY DATA SHEET

NANOKEMOX

1. PRODUCT IDENTIFICATION			
CHEMICAL NAME		: NANOKEMOX	
SYNONYMS		: Nano Titanium dioxide	
2.COMPOSITION/INFORMATION ON INGREDIENTS			
MATERIAL OR COMPONENT	CAS NO.	EINECS NO.	%
Titanium dioxide	13463-67-7	236-675-5	87
Aluminium Hyrdoxide	21645-51-2	244-492-7	5
Amorphous silica	7651-86-9	231-545-4	2

The product also contains fractional percentage of an organic additive.
None of the chemical substance listed herein are considered a potential carcinogen in either the NTP annul report on cacinogens,the IARC Monographs or by OSHA.

3. HAZARD IDENTIFICATION
POTENTIAL HEALTH EFFECTS INHALATION: Inert nuisance dust. Temporary drying effect or irritation of mucous membranes, may result from excessive exposure. Exposure to dust may aggravate preexisting respiratory conditions. EYES: Inert foreign body hazard only. SKIN: non corrosive, non irritating, non sensitizing, may have a drying effect on the skin. INGESTION: No hazard during normal industrial use..
4. FIRST AID MEASURES
INHALATION: The patient should be removed to fresh air EYES: Flush with copious amount of water continuously and seek medical attention. SKIN: Wash with of water and mild soap. INGESTION: No adverse health effects anticipated by this route during proper industrial handling.
5. FIRE FIGHTING MEASURES
SUITABLE EXTINGUISHING MEDIA: No fire hazard. EXTINGUISHING MEDIA WHICH MUST NOT BE USED: Not applicable FIRE AND EXPLOSION HAZARD: Precaution against the discharge of static electricity should be taken during powder handling operations. SPECIAL PROTECTIVE EQUIPMENT: None

6. ACCIDENTAL RELEASE MEASURES
Use any feasible mechanical means (eg. Vaccum,sweeping) but avoid dusting during clean up. Prevent run off from entering storm sewers and ditches which lead to natural waterways.
7.HANDLING AND STORAGE

HANDLING: minimizing inhalation of dust and contact with skin. Take suitable precautions against the discharge of static electricity during powder handling operations.			
STORAGE: Can cause slippery conditions when wet. Should be stored in dry area			
8. EXPOSURE CONTROL/PERSONAL PROTECTION			
EXPOSURE CONTROL: Good natural ventilation will be sufficient in most circumstances.			
RESPIRATORY PROTECTION: Use approved dust respirator if oes is or may be exceeded.			
HAND PROTECTION: Gloves may be worn when prolonged or repeated contact is likely.			
EYE PROTECTION: Safety glasses or goggles to protect against airborne dust.			
SKIN PROTECTION: Individual;s having sensitive skin may find it beneficial to use a barrier cream or moisturer when excessive or prolonged contact with the skin is likely.			
9. PHYSICAL AND CHEMICAL PROPERTIES			
APPEARANCE	Very fine white powder	pH	10% slurry 6.3(before addition of organic)
ODOUR	Odourless	MELTING POINT RANGE	About 1830degree celcius
BOILING POINT RANGE	N.A	FLAMMABILITY	N.A
FLASH POINT	N.A	EXPLOSIVE PROPERTIES	N.A
AUTO FLAMMABILITY	N.A	VAPOUR PRESSURE	N.A
OXIDISING PROPERTY	N.A	PARTITION COEFFICIENT(Octanol/water)	N.A
RELATIVE DENSITY	(H2O=1): 4.0	FAT SOLUBILITY (Solvent-Oil)-Specify	Insoluble
WATER SOLUBILITY	Insoluble	OTHER DATA	
10. STABILITY AND REACTIVITY			
STABILITY: Chemically stable and non reactive.			
MATERIALS TO AVOID: N.A			
HAZARDOUS DECOMPOSITION PRODUCTS: None			
11. TOXICITY INFORMATION			
<u>OCCUPATIONAL EXPOSURE LIMITS</u>			
COMPONENT	MEL or OES	LIMIT	
Titanium Dioxide	OES	10mg/m3 total inhalable (8 hr TWA) 5mg/m3 respirable	
<u>Aluminium Hydroxide OES</u> 10mg/m3 total inhalable (8 hr TWA) 5mg/m3 respirable			
12. ECOLOGICAL INFORMATION			

Available evidence indicates that titanium dioxide does not cause any significant adverse environmental effects. Titanium dioxide does not bioaccumulate. The 96 hr TL for TiO₂ is greater than 1000 ppm (NOAA).

13. DISPOSAL CONSIDERATIONS

This product is not considered hazardous for disposal into sanitary landfills or industrial waste disposal land fill. Please follow appropriate national and local waste regulations.

14. TRANSPORT INFORMATION

PACKAGING GROUP : None

UN Number: : None

Other : None

15. REGULATORY INFORMATION

CLASSIFICATION, PACKAGING & LABELING REGULATIONS

HAZARD CLASSIFICATION: N.A.

RISK PHRASES: N.A.

SAFETY PHRASES: N.A.

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS

The Health and Safety Executive have assigned an occupational exposure standard to titanium dioxide and it is therefore hazardous substance for the purpose of these regulations.