

Material Safety Data Sheet

IDENTITY (As Used on Label and List)

TRANSLINK® PRODUCTS

 BASED ON THE U.S. DEPARTMENT OF LABOR,
 OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 NON-MANDATORY FORM FOR COMPLIANCE WITH OSHA'S
 HAZARD COMMUNICATION STANDARD 29CFR-1910.1200
 MATERIAL SAFETY DATA SHEET REQUIREMENTS.

Section I

 MANUFACTURER'S NAME/ADDRESS
 ENGELHARD CORPORATION
 SPECIALTY CHEMICALS DIVISION
 MENLO PARK, CA 28, EDISON, NJ 08818

CAS/TSCA No.: 1332-58-7

 EMERGENCY TELEPHONE NUMBER
 (201) 632-6414

Section II — HAZARDOUS INGREDIENTS

SPECIFIC CHEMICAL IDENTITY COMMON NAME(S)	OSHA PEL	ACGIH TLV	OTHER LIMITS	OTHER INFORMATION
Surface Modified Calcined Kaolin				
Anhydrous Aluminum Silicate				
Respirable Dust	5 mg/m³	5 mg/m³		
Total Dust	15 mg/m³	10 mg/m³		
Vinyl or Amino Functional Silanes	N/A	N/A		

Section III — PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (°F)	N/A	SPECIFIC GRAVITY (H₂O = 1)	2.5
VAPOR PRESSURE (mm Hg.)	N/A	MELTING POINT	
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (BUTYL ACETATE = 1)	N/A
SOLUBILITY IN WATER	INSOLUBLE		
APPEARANCE AND ODOR	WHITE ODORLESS POWDER		

Section IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)	NON-FLAMMABLE	FLAMMABLE LIMITS	LEL	N/A	UEL	N/A
EXTINGUISHING MEDIA	N/A					
SPECIAL FIRE FIGHTING PROCEDURES	NONE					
UNUSUAL FIRE AND EXPLOSION HAZARDS	NONE					

Section V — REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID	N/A
	STABLE	XX		
INCOMPATIBILITY				
HAZARDOUS DECOMPOSITION PRODUCTS				
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID	N/A
	WILL NOT OCCUR	XX		

 DO 087047
 CONFIDENTIAL

Section VI — HEALTH HAZARD DATA			
ROUTE(S) OF ENTRY:	INHALATION? XX	SKIN?	INGESTION?
HEALTH HAZARDS (ACUTE AND CHRONIC) PR LONGED AND CONTINUOUS EXPOSURE T AN EXCESSIVE CONCENTRATION OF DUST OF ANY KIND, INCLUDING KAOLIN, MAY HAVE AN ADVERSE PULMONARY EFFECT ON SOME PEOPLE.			
CARCINOGENICITY: NO	NTP?	IARC MONOGRAPHS?	OSHA REGULATED?
SIGNS AND SYMPTOMS OF EXPOSURE PROLONGED AND CONTINUOUS EXPOSURE TO DUST MAY RESULT IN COUGH OR SPUTUM PRODUCTION INDISTINGUISHABLE FROM THAT WHICH OCCURS WITH CIGARETTE SMOKING.			
MEDICAL CONDITIONS ASTHMATIC CONDITIONS MAY WORSEN FROM PROLONGED AND CONTINUOUS EXPOSURE TO GENERALLY AGGRAVATED BY EXPOSURE DUST.			
EMERGENCY AND FIRST AID PROCEDURES NO SPECIAL FIRST AID PROCEDURES ARE SPECIFICALLY REQUIRED FOR USE OF KAOLIN R SILANES. CONSULT A PHYSICIAN IF NECESSARY.			
Section VII — PRECAUTIONS FOR SAFE HANDLING AND USE			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED VACUUM OR SCOOP UP THE SPILLED MATERIAL IN A CONTAINER FOR RECLAMATION OR DISPOSAL.			
WASTE DISPOSAL METHOD RAW (UNUSED) MATERIAL MAY BE DISPOSED OF IN A SANITARY LANDFILL, HOWEVER, SPENT MATERIAL MAY BE CONTAMINATED AND MAY REQUIRE SPECIAL DISPOSAL METHODS. CONSULT WITH APPROPRIATE REGULATORY AUTHORITIES.			
OTHER PRECAUTIONS USE DUST MASK AS PRESCRIBED IN SECTION VIII. MATERIAL MAY BE SLIPPERY WHEN WET.			
Section VIII — CONTROL MEASURES			
RESPIRATORY PROTECTION (<i>Specify type</i>) USE NIOSH-APPROVED DUST MASK IF EXPOSURE EXCEEDS TLV.			
VENTILATION	LOCAL EXHAUST XX		SPECIAL
	MECHANICAL (<i>General</i>)		OTHER
PROTECTIVE GLOVES NONE		EYE PROTECTION RECOMMENDED, BUT NOT REQUIRED.	
OTHER PROTECTIVE EQUIPMENT NONE			
WORK/HYGIENIC PRACTICES			
Section IX — DEPT. OF TRANSPORTATION (DOT) CLASSIFICATION			
PROPER SHIPPING NAME	HAZARDOUS MATERIAL CLASSIFICATION	STANDARD TRANSPORTATION COMMODITY CODE (STCC)	
KAOLIN GROUND	NONE	32-952-31	
DATE PREPARED NOVEMBER 1985		DO 087048 CONFIDENTIAL	

THE INFORMATION CONTAINED IN THIS MSDS ACCURATELY REFLECTS THE EVIDENCE USED BY ENGELHARD IN MAKING ITS HAZARD DETERMINATIONS, HOWEVER, NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SUCH EVIDENCE OR THE HAZARD DETERMINATIONS

Material Safety Data Sheet

(TRANSLINK 77)

7/31/87

 IDENTITY (As Used on Label and List)
TRANSLINK®PRODUCTS

 BASED ON THE U.S. DEPARTMENT OF LABOR,
 OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 NON-MANDATORY FORM FOR COMPLIANCE WITH OSHA'S
 HAZARD COMMUNICATION STANDARD 29CFR-1910.1200
 MATERIAL SAFETY DATA SHEET REQUIREMENTS.

Section I

 MANUFACTURER'S NAME/ADDRESS
ENGELHARD CORPORATION
SPECIALTY CHEMICALS DIVISION
MENLO PARK, CA 28, EDISON, NJ 08818

CAS/ECOCIN No.: 1332-58-7

 EMERGENCY TELEPHONE NUMBER
(201) 632-8414
Section II — HAZARDOUS INGREDIENTS

SPECIFIC CHEMICAL IDENTITY COMMON NAME(S)	OSHA PEL	ACGIH TLV	OTHER LIMITS	OTHER INFORMATION
Surface Modified Calcined Kaolin				
Anhydrous Aluminum Silicate				
Respirable Dust	5 mg/m³	5 mg/m³		
Total Dust	15 mg/m³	10 mg/m³		
Vinyl or Amino Functional Silanes	N/A	N/A		

Section III — PHYSICAL/CHEMICAL CHARACTERISTICS

MELTING POINT (°F)	N/A	SPECIFIC GRAVITY (H₂O = 1)	2.5
VAPOR PRESSURE (mm Hg.)	N/A	MELTING POINT	
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (BUTYL ACETATE = 1)	N/A
SOLUBILITY IN WATER	INSOLUBLE		
APPEARANCE AND ODOR	WHITE ODORLESS POWDER		

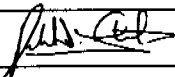
Section IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)	NON-FLAMMABLE	FLAMMABLE LIMITS	LEL	N/A	UEL	N/A
EXTINGUISHING MEDIA	N/A					
SPECIAL FIRE FIGHTING PROCEDURES	NONE					
UNUSUAL FIRE AND EXPLOSION HAZARDS	NONE					

Section V — REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID	N/A
	STABLE	XX		
INCOMPATIBILITY				
HAZARDOUS DECOMPOSITION PRODUCTS				
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID	N/A
	WILL NOT OCCUR	XX		

 DO 087049
 CONFIDENTIAL

Section VI — HEALTH HAZARD DATA			
ROUTE(S) OF ENTRY:	INHALATION? XX	SKIN?	INGESTION?
HEALTH HAZARDS (ACUTE AND CHRONIC) PROLONGED AND CONTINUOUS EXPOSURE TO AN EXCESSIVE CONCENTRATION OF DUST OF ANY KIND, INCLUDING KAOLIN, MAY HAVE AN ADVERSE PULMONARY EFFECT ON SOME PEOPLE.			
CARCINOGENICITY: NO	NTP?	IARC MONOGRAPHS?	OSHA REGULATED?
SIGNS AND SYMPTOMS OF EXPOSURE PROLONGED AND CONTINUOUS EXPOSURE TO DUST MAY RESULT IN COUGH R SPUTUM PRODUCTION INDISTINGUISHABLE FROM THAT WHICH OCCURS WITH CIGARETTE SMOKING.			
MEDICAL CONDITIONS ASTHMATIC CONDITIONS MAY WORSEN FROM PROLONGED AND CONTINUOUS EXPOSURE TO GENERALLY AGGRAVATED BY EXPOSURE DUST.			
EMERGENCY AND FIRST AID PROCEDURES NO SPECIAL FIRST AID PROCEDURES ARE SPECIFICALLY REQUIRED FOR USE OF KAOLIN OR SILANES. CONSULT A PHYSICIAN IF NECESSARY.			
Section VII — PRECAUTIONS FOR SAFE HANDLING AND USE			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED VACUUM OR SCOOP UP THE SPILLED MATERIAL IN A CONTAINER FOR RECLAMATION OR DISPOSAL.			
WASTE DISPOSAL METHOD RAW (UNUSED) MATERIAL MAY BE DISPOSED OF IN A SANITARY LANDFILL, HOWEVER, SPENT MATERIAL MAY BE CONTAMINATED AND MAY REQUIRE SPECIAL DISPOSAL METHODS. CONSULT WITH APPROPRIATE REGULATORY AUTHORITIES.			
OTHER PRECAUTIONS USE DUST MASK AS PRESCRIBED IN SECTION VIII. MATERIAL MAY BE SLIPPERY WHEN WET.			
Section VIII — CONTROL MEASURES			
RESPIRATORY PROTECTION (<i>Specify type</i>) USE NIOSH-APPROVED DUST MASK IF EXPOSURE EXCEEDS TLV.			
VENTILATION	LOCAL EXHAUST XX	SPECIAL	
	MECHANICAL (<i>General</i>)	OTHER	
PROTECTIVE GLOVES NONE		EYE PROTECTION RECOMMENDED, BUT NOT REQUIRED.	
OTHER PROTECTIVE EQUIPMENT NONE			
WORK/HYGIENIC PRACTICES			
Section IX — DEPT. OF TRANSPORTATION (DOT) CLASSIFICATION			
PROPER SHIPPING NAME	HAZARDOUS MATERIAL CLASSIFICATION	STANDARD TRANSPORTATION COMMODITY CODE (STCC)	
KAOLIN GROUND	NONE	32-952-31	
DO 087050 CONFIDENTIAL			
DATE PREPARED NOVEMBER 1985		SIGNATURE OF PREPARER R.I. LEIGHTON 	

THE INFORMATION CONTAINED IN THIS MSDS ACCURATELY REFLECTS THE EVIDENCE USED BY ENGELHARD IN MAKING ITS HAZARD DETERMINATIONS. HOWEVER, NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SUCH EVIDENCE OR THE HAZARD DETERMINATIONS.