

KCDS No. : 104431-03

TUFTONE YK-5 Kao Corporation

1/4 August 26, 2005 May 10, 2005

## MATERIAL SAFETY DATA SHEET

[1.PRODUCT AND COMPANY IDENTIF PRODUCT NAME : TUF	FICATION] TONE YK-5		
	nical Division		
	-5630-7700		
	-5630-7889		
EMERGENCY TELEPHONE : 81-3 NUMBER	-5630-7700		
[2.COMPOSITION/INFORMATION ON	INGREDIENTS]		
SUBSTANCE OR PREPARATION	: Preparation		
INGREDIENTS AND CONCENTRATION RANGE			
Ingredients	Concentration Range(%) CAS RN		
Black Toner			
INGREDIENTS CONTRIBUTING TO THE HAZARD(JAPAN)	): None		
[3.HAZARDS IDENTIFICATION]			
MOST IMPORTANT HAZARDS			
ADVERSE HUMAN HEALTH EFFECTS	: To the best of our investigation, no special hazards have to be mentioned.		
ENVIRONMENTAL EFFECTS	: To the best of our investigation, no information about adverse effect in the environment available.		
PHYSICAL AND CHEMICAL HAZARDS	: May cause risk of dust explosion.		
CLASS NAME FOR MSDS IN JAPAN	: Not applicable		
[4.FIRST-AID MEASURES]			
IN CASE OF INHALATION	: Remove person to fresh air. If necessary seek medical attention.		
IN CASE OF SKIN CONTACT	: Wash material off the skin with plenty of water and soap. If necessary seek medical attention.		
IN CASE OF EYE CONTACT	: Immediately hold eyelids open and flush with a stream of water for at least 15 minutes. If necessary seek medical attention.		
IN CASE OF INGESTION	Seek medical attention. Never give anything by mouth to an unconscious person. If possible, rinse out mouth and give one or two glasses of water or milk to drink.		
[5.FIRE-FIGHTING MEASURES]			
EXTINGUISHING MEDIA	: Water spray, powder		
NOT SUITABLE EXTINGUISHING	: No information available		
MEDIA			
SPECIFIC HAZARDS	: May produce irritating or toxic gases in a fire.		
SPECIFIC METHODS	<ul> <li>Keep away from sources of ignition and use appropriate extinguishing media.Fight fire from upwind position if possible.</li> </ul>		
PROTECTION OF FIREFIGHTERS	: Use goggles in combination with dust mask, and another protections as appropriate to situation.		

[6.ACCIDENTAL RELEASE MEASURES]

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PERSONAL PRECAUTIONS	: Use mask, goggles and protective gloves. Large spills : Remove person to safety. Ensure adequate ventilation. Treat from upwind position.		
ENVIRONMENTAL PRECAUTIONS	: Do not discharge into the drains, surface wate	rs or ground water di	rectly.
METHODS FOR CLEANING UP	: Prevent dispersion of dust. Sweep or vacuum by dust-explosion-proof typ	e cleaner.	
PREVENTION OF SECONDARY HAZARDS	: No information available		
[7.HANDLING AND STORAGE] HANDLING			
TECHNICAL MEASURES	: Facilities storing or utilizing this material shoul eyewash facility and a safety shower.	ld be equipped with a	n
PRECAUTIONS	: Avoid inhalation of fine dust .		
SAFE HANDLING ADVICE	: Handle in well-ventilated areas. Use safety glasses and protective gloves as a Wash hands and face and gargle after handlin Prevent generation of dust. This material may cause risk of dust explosion	ng.	n.
STORAGE			
STORAGE CONDITIONS	: Keep container tightly closed. Protect from sun. Store in a well-ventilated roo	om (under 40 C).	
PACKAGING MATERIALS	: No information available		
[8.EXPOSURE CONTROLS/PERSONA ENGINEERING MEASURES		141 i 4 - iii -	
ENGINEERING MEASURES	<ul> <li>Facilities storing or utilizing this material shou eyewash facility and a safety shower. Use local exhaust ventilation, in case of gene</li> </ul>		in
LIMIT VALUES			
ACGIH(TLV)	: TWA 3.5mg/m3,(2003 year edition) Carbon black TWA 2mg/m3,(2003 year edition) Paraffin wax fume		
OSHA(PEL)	: PEL 3.5mg/m3,(2002 year edition) Carbon black		
PERSONAL PROTECTIVE EQUIPM	ENT		
RESPIRATORY PROTECTION	: Use dust mask, as appropriate to situation.		
HAND PROTECTION	: Rubber gloves		
EYE PROTECTION	: Safety glasses with side shield(Safety goggle	s or Face shield)	
SKIN AND BODY PROTECTION	: Full-body suit		
HYGIENE MEASURES	: No information available		
[9.PHYSICAL AND CHEMICAL PROPE PHYSICAL STATES	RTIES]		
FORM	: Pulverizing powder		
COLOUR	: Black		
ODOUR	: Odourless		
pН	: No data available		
SPECIFIC TEMPERATURES/TEMPE	ERATURE RANGES AT WHICH CHANGES IN F	HYSICAL STATE O	CCUR
BOILING POINT	: No data available		
MELTING POINT	: No data available		

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DECOMPOSITION TEMPERATURE	: No data available		
FLASH POINT	No data available		
AUTOIGNITION TEMPERATURE	No data available		
EXPLOSION PROPERTIES			
- EXPLOSION	: UPPER LIMIT No data available	LOWER LIMIT No data available	
VAPOUR PRESSURE	: No data available		
VAPOUR DENSITY	: No data available		
DENSITY	: 1.2 g/mL (20°C)	(68°F)	
SOLUBILITY			
WATER SOLUBILITY	: Insoluble		
SOLVENT SOLUBILITY	: Partially soluble in toluene, chlorofo	rm and tetrahydrofurane.	
OCTANOL/WATER PARTITION COEFFICIENT	: No data available		
OTHER DATA	: No data available		
140 STARILITY AND DEACTORY			
[10.STABILITY AND REACTIVITY] STABILITY	· Stable in general		
HAZARDOUS REACTIONS	: Stable in general. : Stable.		
CONDITIONS TO AVOID	: No information available		
MATERIALS TO AVOID	: No information available		
HAZARDOUS DECOMPOSITION	: No information available		
PRODUCTS	. NO INVITUATION AVAILABLE		
OTHERS	: No information available		
[11.TOXICOLOGICAL INFORMATION]			
ACUTE TOXICITY	: Oral, rat, LD50 : > 2000 mg/kg		
LOCAL EFFECTS	:		
CORROSIVITY	: No information available		
SKIN IRRITATION	: No information available		
EYE IRRITATION	: No information available		
SENSITIZATION	: No information available		
CHRONIC TOXICITY/LONG TERM TOXICITY	: No information available		
CARCINOGENICITY	: No information available		
IARC	: Group2B,(2003 year edition) Carbon black		
	Group3,(2003 year edition) Titanium dioxide Group 3,Unclassifiable as to carcin	agenicity to humans	
	Amorphous Silica	egenieky to nameno	
NTP	: Not established		
OSHA	: Not established		
MUTAGENICITY	: Ames test (TA98,TA100,TA1535,T	A1537,TA1538, WP2uvrA) : Negative	1
TERATOGENICITY	: No information available		
REPRODUCTION TOXICITY	No information available		
OTHER DATA	: No information available		
[12.ECOLOGICAL INFORMATION]			

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MOBILITY	: No information available		
PERSISTENCE/ DEGRADABILITY	: No information available		
. BIOACCUMULATION	: No information available		
ECOTOXICITY	:		
AQUATIC TOXICITY	: No information available		
OTHER DATA	: No information available		
[13.DISPOSAL CONSIDERATIONS]	Review "HANDLING AND STORAGE (So Passed to a licensed waste contractor. This product may cause risk of dust explo Dispose of waste in accordance with loca		ations.
Dispose of waste in accordance wit	h local,state and federal regulations.		
[14.TRANSPORT INFORMATION]			

Follow all regulations in your country or region

UN CLASS/UN NUMBER	: Not applicable
PRECAUTIONS	: Review "ACCIDENTAL RELEASE MEASURES (Section 6)". Review "HANDLING AND STORAGE (Section 7)". Ensure containers without breakage or leakage. Ensure containers tightly fixed. Follow all regulations in your country or region.

[15.REGULATORY INFORMATION]

Follow all regulations in your country or region **INVENTORIES** E

- 3	
ENCS(Japan)	Yes
rsca(USA)	Yes
EINECS(EÚ)	No(ELINCS)
AICS(Australia)	Yes
DSL(Canada)	No(NDSL)
ECL(Korea)	Yes
PICCS(Philippines)	Yes

KAO Corporation is not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

## [16.OTHER INFORMATION]

REFERENCE

: -Safety data sheet for chemical products - Part 1: Content and order of sections(ISO 11014-1) -International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)

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