

"EC - SAFETY DATA SHEET"

Issue No. : 98 OKI-001

(directive - 91 / 155 / EEC)

Date : 13 Jan., 1998

Page:1

1. Identification of Substance / Preparation and of the Company / Undertaking

1.1 Product details

: TUFTONE COK

1.2 Company details

1.2.1 Company / supplier

: Kao Corporation
1-3, Bunka 2-Chome, Sumida-ku
Tokyo, JAPAN 131

1.2.2 Contact

: Chemical Division

2. Composition / Information on Ingredients

2.1 Chemical characterization

2.1.1 CAS number : -

2.1.2 Identification No. : -

2.2 Chemical characterization (preparation)

2.2.1 Description : Mixture of Polyester resin, Pigment and Additives

2.2.2 CAS numbers :

Composition : Silica : <1%

CAS No. 7631-86-9

Silica : <1%

CAS No. 68611-44-9

3. Hazards Identification

3.1 Special hazard information (R-phrase) : -

4. First Aid Measures

4.1 General information

: Inhalation; Remove to fresh air if effects occur.
Consult local medical personnel.
Eyes; In case of contact, immediately flush eyes with plenty of water.

5. Fire -fighting Measures

5.1 Suitable extinction medium

: Water spray, Foam, Dry chemicals and CO₂

6. Accidental Release Measures

6.1 Personal precautionary measure

: See first aid measures.

6.2 Environmental protection measure

: Waste materials to be disposed of according to regulations.

- 6.3 Clean up measure : Sweep up or clean up with a vacuum cleaner.
 6.4 Additional information : -

7. Handling and Storage

7.1 Handling

- 7.1.1 Safety data : -
 7.1.2 Fire and explosion hazard data : These materials has no unusual fire or explosion hazard.

7.2 Storage

- 7.2.1 Storage details : No special storage requirements for safety reasons.
 7.2.2 Storage classification : -

8. Exposure Controls / Personal Protection

8.1 Personal safety

- 8.1.1 General protective- and hygiene measure
 8.1.2 Breathing protection : Use a NIOSH/MSHA approved dust/mist respirator
 8.1.3 Hand protection : Use suitable protective gloves.
 8.1.4 Eye protection : Use protective goggles.
 8.1.5 Body protection : Use protective suits.

9. Physical - and Chemical Properties

9.1 Appearance

- 9.1.1 Physical state : Solid(Powder)
 9.1.2 Color : Cyan
 9.1.3 Odor : None

9.2 Relevant safety data

Property	Unit	Method of analysis
9.2.1 Change of state	-	
9.2.1.1 Melting point / area	Not Applicable	
9.2.1.2 Boiling point / area	Not Applicable	
9.2.2 Flash point	-	
9.2.3 Specific gravity	1.2	
9.2.4 Solubility	Insoluble in water	
9.2.5 pH-value	-	
9.2.6 Viscosity	-	
9.2.7 Solvent content	0%	

9.3 Additional information : -

10. Stability and Reactivity

- 10.1 Storage conditions to avoid : -
 10.2 Products to avoid : -
 10.3 Dangerous decomposition products : Phenol derivatives, Carbon monoxide

when heated at high temperature (>300° C)

10.4 Additional information : -

11. Toxicological Information

11.1 Classification of LD₅₀value : >2000mg/kg
 11.2 Primary irritation : non-irritant
 11.3 Sensitization : not sensitized
 11.4 Additional information : Ames test ; Negative
 (Salmonella typhimurium, Escherichia coli)

12. Ecological Information

12.1 Details of breakdown

12.1.1 Method of decomposition : -
 12.1.2 Analytical method : -
 12.1.3 Degree of decomposition : -
 12.1.4 Text book value : -

12.2 Additional information

	date	unit	comment
12.2.1 COD-value		-	
12.2.2 BOD5-value		-	

13. Disposal

13.1 Recommended Method of disposal : If recycling not possible, eliminate in accordance with locally valid waste-disposal regulation.

13.2 Disposal code number : -

14. Transport

14.1 General comment : It is no dangerous product according to the transport regulations.

15. Regulatory Information

15.1 In accordance with EC regulations

15.1.1 Classification, packaging and labeling description : -
 15.1.2 R-phrases : -
 15.1.3 S-phrases : -

15.2 In accordance with national regulations

15.2.1 Water hazard class : 2
 15.2.2 Additional information : -

16. Other Information

16.1 Change of the material safety data sheet

16.1.1 Statement of reason for change : -
 16.1.2 Date of change : -

16.2 Others

TO THE BEST OF THE MANUFACTURER'S KNOWLEDGE, THE INFORMATION

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"EC - SAFETY DATA SHEET"

Issue No. : 98 OKI-002

(directive - 91 / 155 / EEC)

Date : 13 Jan., 1998

Page:1

1. Identification of Substance / Preparation and of the Company / Undertaking

1.1 Product details

: TUFTONE MOK

1.2 Company details

1.2.1 Company / supplier

: Kao Corporation
1-3, Bunka 2-Chome, Sumida-ku
Tokyo, JAPAN 131

1.2.2 Contact

: Chemical Division

2. Composition / Information on Ingredients

2.1 Chemical characterization

2.1.1 CAS number : -

2.1.2 Identification No. : -

2.2 Chemical characterization (preparation)

2.2.1 Description : Mixture of Polyester resin, Pigment and Additives

2.2.2 CAS numbers :

Composition : Silica : <1%

CAS No. 7631-86-9

Silica : <1%

CAS No. 68611-44-9

3. Hazards Identification

3.1 Special hazard information (R-phrase) : -

4. First Aid Measures

4.1 General information

: Inhalation; Remove to fresh air if effects occur.
Consult local medical personnel.
Eyes; In case of contact, immediately flush eyes with plenty of water.

5. Fire -fighting Measures

5.1 Suitable extinction medium

: Water spray, Foam, Dry chemicals and CO₂

6. Accidental Release Measures

6.1 Personal precautionary measure

: See first aid measures.

6.2 Environmental protection measure

: Waste materials to be disposed of according to regulations.

- 6.3 Clean up measure : Sweep up or clean up with a vacuum cleaner.
 6.4 Additional information : -

7. Handling and Storage

7.1 Handling

- 7.1.1 Safety data : -
 7.1.2 Fire and explosion hazard data : These materials has no unusual fire or explosion hazard.

7.2 Storage

- 7.2.1 Storage details : No special storage requirements for safety reasons.
 7.2.2 Storage classification : -

8. Exposure Controls / Personal Protection

8.1 Personal safety

- 8.1.1 General protective- and hygiene measure
 8.1.2 Breathing protection : Use a NIOSH/MSHA approved dust/mist respirator
 8.1.3 Hand protection : Use suitable protective gloves.
 8.1.4 Eye protection : Use protective goggles.
 8.1.5 Body protection : Use protective suits.

9. Physical - and Chemical Properties

9.1 Appearance

- 9.1.1 Physical state : Solid(Powder)
 9.1.2 Color : Magenta
 9.1.3 Odor : None

9.2 Relevant safety data

Property	Unit	Method of analysis
9.2.1 Change of state	-	
9.2.1.1 Melting point / area	Not Applicable	
9.2.1.2 Boiling point / area	Not Applicable	
9.2.2 Flash point	-	
9.2.3 Specific gravity	1.2	
9.2.4 Solubility	Insoluble in water	
9.2.5 pH-value	-	
9.2.6 Viscosity	-	
9.2.7 Solvent content	0%	

9.3 Additional information : -

10. Stability and Reactivity

- 10.1 Storage conditions to avoid : -
 10.2 Products to avoid : -
 10.3 Dangerous decomposition products : Phenol derivatives, Carbon monoxide

when heated at high temperature (>300 ° C)

10.4 Additional information : -

11. Toxicological Information

11.1 Classification of LD₅₀value : >2000mg/kg
 11.2 Primary irritation : non-irritant
 11.3 Sensitization : not sensitized
 11.4 Additional information : Ames test ; Negative
 (Salmonella typhimurium, Escherichia coli)

12. Ecological Information

12.1 Details of breakdown
 12.1.1 Method of decomposition : -
 12.1.2 Analytical method : -
 12.1.3 Degree of decomposition : -
 12.1.4 Text book value : -

12.2 Additional information

	<u>date</u>	<u>unit</u>	<u>comment</u>
12.2.1 COD-value		-	
12.2.2 BOD5-value		-	

13. Disposal

13.1 Recommended Method of disposal : If recycling not possible, eliminate in accordance with locally valid waste-disposal regulation.
 13.2 Disposal code number : -

14. Transport

14.1 General comment : It is no dangerous product according to the transport regulations.

15. Regulatory Information

15.1 In accordance with EC regulations
 15.1.1 Classification, packaging and labeling description : -
 15.1.2 R-phrases : -
 15.1.3 S-phrases : -
 15.2 In accordance with national regulations
 15.2.1 Water hazard class : 2
 15.2.2 Additional information : -

16. Other Information

16.1 Change of the material safety data sheet
 16.1.1 Statement of reason for change : -
 16.1.2 Date of change : -

16.2 Others

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"EC - SAFETY DATA SHEET"

Issue No. : 98 OKI-003

(directive - 91 / 155 / EEC)

Date : 13 Jan., 1998

Page:1

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1.1 Product details

: TUFTONE YOK

1.2 Company details

1.2.1 Company / supplier

: Kao Corporation
1-3, Bunka 2-Chome, Sumida-ku
Tokyo, JAPAN 131

1.2.2 Contact

: Chemical Division

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2.1 Chemical characterization

2.1.1 CAS number : -

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3.1 Special hazard information (R-phrase) : -

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4.1 General information

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Eyes; In case of contact, immediately flush eyes with plenty of water.

5. Fire -fighting Measures

5.1 Suitable extinction medium

: Water spray, Foam, Dry chemicals and CO₂

6. Accidental Release Measures

6.1 Personal precautionary measure

: See first aid measures.

6.2 Environmental protection measure

: Waste materials to be disposed of according to regulations.

6.3 Clean up measure : Sweep up or clean up with a vacuum cleaner.

6.4 Additional information : -

7. Handling and Storage

7.1 Handling

7.1.1 Safety data : -

7.1.2 Fire and explosion hazard data : These materials has no unusual fire or explosion hazard.

7.2 Storage

7.2.1 Storage details : No special storage requirements for safety reasons.

7.2.2 Storage classification : -

8. Exposure Controls / Personal Protection

8.1 Personal safety

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8.1.3 Hand protection : Use suitable protective gloves.

8.1.4 Eye protection : Use protective goggles.

8.1.5 Body protection : Use protective suits.

9. Physical - and Chemical Properties

9.1 Appearance

9.1.1 Physical state : Solid(Powder)

9.1.2 Color : Yellow

9.1.3 Odor : None

9.2 Relevant safety data

Property	Unit	Method of analysis
9.2.1 Change of state	-	
9.2.1.1 Melting point / area	Not Applicable	
9.2.1.2 Boiling point / area	Not Applicable	
9.2.2 Flash point	-	
9.2.3 Specific gravity	1.2	
9.2.4 Solubility	Insoluble in water	
9.2.5 pH-value	-	
9.2.6 Viscosity	-	
9.2.7 Solvent content	0%	

9.3 Additional information : -

10. Stability and Reactivity

10.1 Storage conditions to avoid : -

10.2 Products to avoid : -

10.3 Dangerous decomposition products : Phenol derivatives, Carbon monoxide

when heated at high temperature (>300° C)

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- 12.1.3 Degree of decomposition : -
- 12.1.4 Text book value : -

12.2 Additional information

	date	unit	comment
12.2.1 COD-value		-	
12.2.2 BOD5-value		-	

13. Disposal

- 13.1 Recommended Method of disposal : If recycling not possible, eliminate in accordance with locally valid waste-disposal regulation.
- 13.2 Disposal code number : -

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- 15.1.1 Classification, packaging and labeling description : -
- 15.1.2 R-phrases : -
- 15.1.3 S-phrases : -

15.2 In accordance with national regulations

- 15.2.1 Water hazard class : 2
- 15.2.2 Additional information : -

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16.1 Change of the material safety data sheet

- 16.1.1 Statement of reason for change : -
- 16.1.2 Date of change : -

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SAFETY DATA SHEET

Date of issue:	5/8/2002
Product:	TUFTONE BOK
SDS REF:	43134
Page:	1 of 2
Version:	1
Set up:	5/8/2002
Revised:	
Relevant change from last version:	

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING	<p>Commercial product name: TUFTONE BOK Manufacturer: KAO CORPORATION 1-3, Bunka, 2-chome, Sumida-ku, Tokyo 1318501 JAPAN Tel. +81 3 5630 7700 . Fax +81 3 5630 7889</p>
2 COMPOSITION / INFORMATION ON INGREDIENTS	<p>Chemical Name: Black Toner Product chemical nature: Preparation Solvent: None</p>
3 HAZARDOUS IDENTIFICATION	<p>Most important hazards: Contains hydrogen bis[1-[(5-chloro-2-hydroxyphenyl)azo]-2-naphtholato(2-)]chromate(1-). May produce an allergic reaction.</p>
4 FIRST-AID MEASURES	<p>In case of skin contact: Wash with soap and water. In case of eye contact: Rinse away with water. SEEK IMMEDIATE MEDICAL ASSISTANCE FROM A DOCTOR IN CASE MARKED(*)ABOVE (If not marked in this way, seek medical advise if adverse reaction occurs and persists).</p>
5 FIRE-FIGHTING MEASURES	<p>Extinguishing media Suitable: Water (mist), foam, dry chemical powder or carbon dioxide.</p>
6 ACCIDENTAL RELEASE MEASURES	<p>Environmental precautions measures: Avoid to drain it away Methods for cleaning up: Protect spreading of large spills by sand, then absorb spill with diatomaceous or other suitable absorbent. Additional information: In common with many organic chemicals in powder form, this product may be capable of forming flammable dust clouds in air.</p>
7 HANDLING AND STORAGE	<p>Handling: Handle in accordance with good industrial hygiene and safety practices. Storage:</p>
8 EXPOSURE CONTROLS / PERSONAL PROTECTION	<p>Technical protective measures: Avoid spillage, skin and eye contacts. Personal protective equipment Hand protection: Eye protection: Protecting glasses. Industrial hygiene: Wash hands before work breaks and at the end of working.</p>
9 PHYSICAL AND CHEMICAL PROPERTIES	<p>Physical appearance: (20) Form: Powder Colour: Black Odour: Odorless Change in Physical state Melting Point/ Range: Dropping Point / Range: Density: (20) 1.2 g/cm³ Viscosity: () mPa·s Solubility in water: () g/l pH Value: (at g/l H₂O) () Flash point: Not applicable</p>

SAFETY DATA SHEET

Date of issue:	5/8/2002
Product:	TUFTONE BOK
SDS REF:	43134
Page:	2 of 2
Version:	2
Set up:	5/8/2002
Revised:	
Relevant change from last version:	

10 STABILITY AND REACTIVITY	
Hazardous decomposition products:	
Hazardous reactions:	
11 TOXICOLOGICAL INFORMATION	
Acute toxicity:	ACUTE ORAL TOXICITY: LD50 >2000 mg/kg
Irritation / Corrosivity:	No data available
Additional information:	MUTAGENICITY: Negative (Ames Test).
12 ECOLOGICAL INFORMATION	
Environmental persistence	
Biodegradability value:	
Other information:	This product is not classified dangerous for the environment following Directive 1999/45/EC
Toxicity to aquatic life:	
13 DISPOSAL CONSIDERATIONS	
Recommended Method of disposal: Incinerate in accordance with regulations.	
14 TRANSPORT INFORMATION	
UN No.	Hazard identification No: NR
ADR / RID: Class N.R.	No P.G. Symbol:
IATA / ICAO: Class N.R.	No P.G. Symbol:
IMO / IMDG: Class N.R.	No P.G. Symbol:
	EmS: MFAG: Load cat. :
Other information:	
N.R. = It is a Not Regulated product within transport regulations.	
15 REGULATORY INFORMATION	
Hazard warning label:	None
Risk phrases:	On the basis of the data available to us, this product does not need any risk phrase.
Safety phrases:	One should however observe the usual precautionary measures for the dealing with chemicals. (the classification is based on 1999/45/EC)
<i>PRODUCT LABEL INFORMATION ON HEALTH AND SAFETY ACCORDING TO EU REGULATION.</i>	
16 OTHER INFORMATION	
Other information:	
<i>This information, which describes our product with regard to possible security requirements, is based on the present state of our knowledge and experience. It is given in good faith but no warranty expressed or implied with respect to the quality and properties of our product is made.</i>	