Material Name:PTYH-28

* * * Section 1 - Chemical Product and Company Identification * * *

Chemical Name: Black Toner **Manufacturer Information** KAO CORPORATION 1-3, Bunka, 2-chome, Sumida-ku Tokyo, JAPAN 131-8501

Phone #: Japan: 011-81-3-5630-7625

Emergency # Japan: 011-81-3-5630-7625

Distributor/Contact Information

KAO CORPORATION 1334, Minato, Wakayama-City Wakayama, JAPAN 640-8580 Phone #: Japan: 011-81-73-426-8557

Emergency #: Japan: 011-81-73-426-8557

* * * Section 2 - Composition / Information on Ingredients * * *

| CAS # | Component | Percent |
|------------|-------------------|------------|
| 1333-86-4 | Carbon black | 3-10 |
| 7631-86-9 | Silica, amorphous | 0.5-1.5 |
| 13463-67-7 | Titanium dioxide | 0.25-0.6 |
| 1314-60-9 | Antimony oxide | 0.005-0.05 |
| 18282-10-5 | Tin() oxide | 0.05-0.2 |

Component Information/Information on Non-Hazardous Components

Components of this product are listed under OSHA 29 CFR 1910.1000. See Section 15 for further regulations.

* * * Section 3 - Hazards Identification * * *

Emergency Overview

Fine, black, water insoluble, odorless powder. May be harmful if swallowed or inhaled. Product presents no serious risk of chemical damage to the eyes or skin.

FLASH POINT: Not applicable

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0

Use a Personal Protection: (See Section 8) - Use protective goggles. Use suitable protective gloves. NIOSH approved dust/mist respirator.

See section 5 for fire fighting measures.

Label Information

Non-hazardous for transportation purposes.

Potential Health Effects: Eyes

This product presents no serious risk of chemical damage to the eyes.

Potential Health Effects: Skin

This product presents no serious risk of chemical damage to the skin.

Potential Health Effects: Ingestion

This product may be harmful if swallowed.

Material Name: PTYH-28

Potential Health Effects: Inhalation

Respiratory tract may be affected by exposure to large amounts of dust from this product.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0 Pers. Prot.: (See Section 8)

Hazard Scale: $0 = Minimal \ 1 = Slight \ 2 = Moderate \ 3 = Serious \ 4 = Severe \ * = Chronic hazard$

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

Flush eyes with plenty of water for a minimum of 15 minutes, and seek medical attention.

First Aid: Skin

Wash material off of skin with plenty of soap and water.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice.

First Aid: Inhalation

Remove person to fresh air and seek medical attention. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

First Aid: Notes to Physician

Not provided

* * * Section 5 - Fire Fighting Measures * * *

Flash Point: Not applicable Upper Flammable Limit (UFL): Not available Auto Ignition: Not available Rate of Burning: Not available

Method Used: Not applicable Lower Flammable Limit (LFL): Not available Flammability Classification: Not available

General Fire Hazards

Minimal fire hazard. Material is self-extinguishing.

Hazardous Combustion Products

Combustion or decomposition will generate phenol derivatives, carbon monoxide, or carbon dioxide over 300°C (572°F).

Extinguishing Media

Dry chemical or carbon dioxide for small fires.

Alcohol resistant foams for large fires.

Fire Fighting Equipment/Instructions

Not provided

NFPA Ratings: Health: - Fire: - Reactivity: - Other: -

<u>Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe</u></u>

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

Review FIRE FIGHTING MEASURES (Section 5) and EXPOSURE CONTROLS/PERSONAL (Section 8) before proceeding with cleanup. Use appropriate personal protective equipment during cleanup. Prevent release of material into the natural environment.

Clean-Up Procedures

If the product is spilled, Sweep up the material and recover it, or mix the spilled material with moist absorbent and shovel into suitable waste container. This material is non-hazardous under RCRA.

Material Name: PTYH-28

Evacuation Procedures

Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Special Procedures

Not applicable

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Use protective gloves and goggles.

Storage Procedures

Keep containers tightly closed and store in a cool, well ventilated area. Storage below 35°C (95°F) is recommended to prevent product from caking.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Exposure Guidelines

A: General Product Information

This substance is generally non-hazardous but keep exposure to a minimum.

B: Component Exposure Limits

Carbon black (1333-86-4)

ACGIH: 3.5 mg/m3 TWA

OSHA: 3.5 mg/m3 TWA

NIOSH: 0.1 mg PAH's/m3 [carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)]; NIOSH Potential Occupational Carcinogen - see Appendix A; see Appendix C for supplementary exposure limits

Silica, amorphous (7631-86-9)

NIOSH: 6 mg/m3 TWA

Titanium dioxide (13463-67-7)

ACGIH: 10 mg/m3 TWA

OSHA: Final PELs Total dust:15mg/m3 TWA

Vacated PELs Total dust:10mg/m3 TWA

NIOSH: Ca;lowest feasible concentration(0.2mg/m3 LOQ)

Antimony oxide (1314-60-9)

ACGIH: As Sb:0.5 mg/m3 TWA OSHA: As Sb:0.5 mg/m3 TWA

NIOSH: 0.5mg/m3 TWA

1005H: 0.511g/115 1 WA

Tin() oxide (18282-10-5)

NIOSH: 2mg/m3 TWA

Paraffin wax fume (8002-74-2)

ACGIH: 2 mg/m3 TWA

OSHA: Vacated PELs 2 mg/m3 TWA

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NIOSH: 2mg/m3 TWA
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Engineering Controls

Use local exhaust ventilation. (Use local ventilation in dusty areas.)

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Use protective goggles.

Personal Protective Equipment: Skin

Use suitable protective gloves.

Material Name: PTYH-28

Personal Protective Equipment: Respiratory

Use a NIOSH approved dust/mist respirator.

Personal Protective Equipment: General

Not applicable

* * * Section 9 - Physical & Chemical Properties * * *

| Appearance: | Black powder | 0.0001 | odorless |
|--|--------------------------|--------|---------------|
| Physical State: | solid | | Not available |
| Vapor Pressure: Boiling Point: Solubility (H2O): Particle Size: | Not applicable insoluble | | |

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable

Chemical Stability: Conditions to Avoid

Not available

Incompatibility

Strong oxidizing agents

Hazardous Decomposition

Combustion or decomposition will generate phenol derivatives, carbon dioxide, and carbon monoxide over 300°C (572°F).

Hazardous Polymerization

Will not occur

* * * Section 11 - Toxicological Information * * *

General Toxicity

A: General Product Information Not available

Not available

B: Component Analysis

No information is available.

Carcinogenicity

A: General Product Information

See below

B: Component Carcinogenicity

Material Name:PTYH-28

Carbon black (1333-86-4)

ACGIH: A4 - Not Classifiable as a Human Carcinogen NIOSH: occupational carcinogen IARC: Monograph 65; 1996 (Group 2B (sufficient animal data)) Silica, amorphous (7631-86-9) IARC: Monograph 68; 1997 (Group 3 (not classifiable)) Titanium dioxide (13463-67-7) ACGIH: A4 - Not Classifiable as a Human Carcinogen NIOSH: occupational carcinogen

NIOSH: occupational carcinogen

IARC: Monograph 47; 1989 (Group 3 (not classifiable))

Epidemiology

Not available

Neurotoxicity

Not available

Mutagenicity

Not available

Teratogenicity

Not available

Other Toxicological Information

Not available

* * * Section 12 - Ecological Information * * *

Ecotoxicity

Not available

Environmental Fate

Not available

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

A: General Product Information

Not applicable

B: Component Waste Numbers

No information is available.

Disposal Instructions

Dispose of material waste in accordance with governmental regulations. Prevent release of material into natural environment.

Material Name:PTYH-28

* * * Section 14 - Transportation Information * * *

US DOT Information

Shipping Name: Hazard Class: Not applicable UN/NA #: Not applicable Packing Group: Not applicable Required Label(s): Not applicable Additional Info.: Not available

International Transportation Regulations

See above

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: General Product Information

Regulated

B: Component Analysis

None of the components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

A: General Product Information

Regulated

| B: Component Analysis | | | | | | | | |
|-----------------------|------------|----|----|----|----|----|----|----|
| Component | CAS# | CA | FL | MA | MN | NJ | PA | RI |
| Carbon black | 1333-86-4 | Y | Ν | Y | Y | Y | Y | Ν |
| Silica, amorphous | 7631-86-9 | Y | Y | Y | Y | Y | Y | Ν |
| Titanium dioxide | 13463-67-7 | Y | Ν | Y | Y | Y | Y | Y |
| Antimony oxide | 1314-60-9 | Y | Y | Y | Y | Y | Y | Ν |
| Tin() oxide | 18282-10-5 | Ν | Ν | Ν | Y | Ν | Ν | Ν |
| Paraffin wax | 8002-74-2 | Y | Y | Y | Y | Ν | Y | Y |

Other Regulations

A: General Product Information

In Mexico, this product's component, Carbon black, is regulated under:

Safety and Hygiene Conditions in the Workplace

-Instruction No. 10 - STELs: 7 mg/m

-Instruction No. 10 - TWAs: 3.5 mg/m

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

| Component | CAS # | Minimum Concentration |
|--------------|-----------|-----------------------|
| Carbon black | 1333-86-4 | 1% item 309 (1271) |

Silica:

In Canada:

-WHIMIS ingredient disclosure for Silica (amorphous, fumed) is required as a 1% item. 1403(1488);

-Exposure limits under OHSA exist in Ontario and Quebec.

Material Name:PTYH-28

All components of this product are on the TSCA Inventory

B: Component Analysis

* * * Section 16 - Other Information * * *

Other Information

TO THE BEST OF THE MANUFACTURER'S KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS ACCURATE. HOWEVER, NEITHER THE MANUFACTURER, NOR ANY OF ITS AFFILIATES, MAKE ANY REPRESENTATIONS OR WARRANTIES (EXPRESSED OR IMPLIED), NOR ASSUMES ANY LIABILITY (INCLUDING LIABILITY FOR ANY DIRECT, INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES) WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. SUCH INFORMATION MAY BE (WITHOUT LIMITATION) INVALID IF THE SPECIFIED MATERIAL IS USED IN COMBINATION WITH ANOTHER, IN A PARTICULAR PROCESS, OR UNDER UNUSUAL CONDITIONS. DETERMINATION OF SUITABILITY OF ANY MATERIAL FOR ANY GIVEN PURPOSE IS THE SOLE RESPONSIBILITY OF THE USER WHO ASSUMES ALL RISK AND RESPONSIBILITY THEREFOR. ALL MATERIALS MAY PRESENT UNKNOWN HAZARDS AND SHOULD BE USED WITH APPROPRIATE CAUTION. THE MANUFACTURER CANNOT AND DOES NOT GUARANTEE THAT THE HAZARDS DESCRIBED HEREIN ARE THE ONLY ONES THAT EXIST.

Please replace all prior MSDSs for this product with the most current issue.

Key/Legend

Not provided

Contact: Yasuhiro Hidaka Performance Chemicals Research Laboratories Kao Corporation Contact Phone: Japan:011-81-73-426-8557

This is the end of MSDS.