

SC # 485, 487, 492 + 493

MATERIAL SAFETY DATA SHEET (1/3)

MSDS No. KME-SD-002

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

ITEM: KX-PDP1 Developer for KX-P4450/ P4450i/ P4451/ P4455

PRODUCT NAME : RS-138-25/B/y Developer

DISTRIBUTOR'S NAME : PANASONIC COMMUNICATIONS & SYSTEMS CO.

ADDRESS : 2 PANASONIC WAY, SECAUCUS. NJ 07094

TELEPHONE NUMBER : 201-392-4454

MANUFACTURER'S NAME: KYUSHU MATSUSHITA ELECTRIC CO..LTD.

DATE PREPARED : June 30, 1994

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS No.</u>	<u>Proportion (% by wt.)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Other Limits</u>
Ferrite	1317-38-0				
	1314-13-2	95.4	N.E.	N.E.	N.E.
	1309-37-1				
RS-138-25 Toner		4.6			

N.E. (none established)

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Odorless black fine powder. Nonflammable, but when suspended in air, is combustible as with most organic powders. No significant health effects are associated with this product.

POTENTIAL HEALTH EFFECTS

EYES: Solid or dusts may cause irritation or corneal injury due to mechanical action.

SKIN CONTACT: Essentially nonirritating to skin.

SKIN ABSORPTION: Skin absorption is unlikely due to physical properties.

INGESTION: Oral toxicity is believed to be low. Considered to be physiologically inert.

INHALATION: Minimal irritation to respiratory track may occur.

MATERIAL SAFETY DATA SHEET (2/3)

MSDS No.:MSDS100

4. FIRST AID MEASURES

EYES: Flush eyes immediately with plenty of water for at least 5 minutes.

SKIN: Flush with plenty of water.

INGESTION: No adverse effects anticipated by this route of exposure incidental to proper handling.

INHALATION: Remove to fresh air. If effects occur, consult medical personnel.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: No data available

FLAMMABLE LIMITS:

LFL: N.A. (not applicable)

UFL: N.A.

EXTINGUISHING MEDIA: Water fog, foam, CO₂, dry chemicals.

FIRE-FIGHTING EQUIPMENT: Wear full bunker gear including a positive pressure self-contained breathing apparatus in case of burning in large quantities.

6. ACCIDENTAL RELEASE MEASURES

Sweep up and discard.

7. HANDLING AND STORAGE

Inhalation and contact with skin or eyes should be avoided. Provide general ventilation. Good general ventilation should be sufficient for most conditions.

Store in a cool, well ventilated place away from flames and spark-producing equipment.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: For most conditions, no respiratory protection should be needed; however, in dusty atmospheres, use an approved dust respirator.

SKIN PROTECTION: No precautions should be needed under normal use.

EYE PROTECTION: No precautions should be needed under normal use.

MATERIAL SAFETY DATA SHEET (2/3)

MSDS No. KME-SD-002

4. FIRST AID MEASURES

EYES: Flush eyes immediately with plenty of water for at least 5 minutes.

SKIN: Flush with plenty of water.

INGESTION: No adverse effects anticipated by this route of exposure incidental to proper handling.

INHALATION: Remove to fresh air. If effects occur, consult medical personnel.

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FLAMMABLE PROPERTIES:

FLASH POINT: No data available

FLAMMABLE LIMITS:

LFL: N.A. (not applicable)

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EXTINGUISHING MEDIA: Water fog, foam, CO₂, dry chemicals.

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SKIN PROTECTION: No precautions should be needed under normal use.

EYE PROTECTION: No precautions should be needed under normal use.



MATERIAL SAFETY DATA SHEET (3/3)

MSDS No. YME-SD-002

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Black fine powder
ODOR: None
BOILING POINT: N.A. (not applicable)
VAP PRESS: N.A.
VAP DENSITY: N.A.
SOL IN WATER: Negligible
SP. GRAVITY: 4.30
FREEZING POINT: N.A.
pH: N.A.
% VOLATILE: N.A.

10. STABILITY AND REACTIVITY

STABILITY: This is a stable product.

INCOMPATIBILITY: (SPECIAL MATERIALS TO AVOID) None

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂ or NO_x (by high heat and fire)

HAZARDOUS POLYMERIZATION: Will not occur.

DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Waste must be disposed of in accordance with country and local environmental control regulations. Incineration is a preferred way.

TOXICOLOGICAL INFORMATION

INGESTION: The LD₅₀ to rats was >2000mg/kg.

MUTAGENESIS: Negative in the Ames test.

Meets specifications through Underwriters Laboratories which include Federal Regulations

28. Ozone Test

28.1 An appliance that produces ozone during normal operation shall not produce an average time-weighted concentration above background in excess of 0.1 parts per million nor a transitory concentration of more than 0.3 parts per million when tested in accordance with paragraphs 28.2 and 28.3. The average time-weighted concentration shall be considered the average concentration during an 8-hour operating period.

28.2 An ozone concentration measurement is to be made at each probable operator position with the appliance installed in the center of a closed room of approximately 1000 cubic feet (8 by 12 by 10 feet high). The appliance is to be operated in the same manner as for the temperature test, as described in Section 27. The test room is to be at normal temperature and relative humidity, and there is to be no circulation of air other than that resulting from normal machine operation.

28.3 If operation of the machine is possible with any of its fans or heaters not functioning or with paper or fluid supplies, or both, exhausted, the test described in paragraph 28.2 is to be repeated enough times with the various components not operating or without paper or fluid to determine that these conditions do not result in ozone concentrations above those specified in paragraph 28.1.

29. Abnormal Operation Test

29.1 If the condition of normal operation are not representative of the abnormal conditions possible in service, an appliance shall not present a risk of fire, electric shock, or injury to persons when operated under such abnormal conditions.

29.2 Malfunction of components and likely misuses of the appliance that could present an unacceptable condition are to be simulated during the abnormal tests mentioned in paragraph 29.1. Examples are as follows:

- A.** Misloading (too much paper at a time, folded or bunched paper, and the like).
- B.** A paper jam that is likely to stall or overload the drive motor.
- C.** Malfunction of fans or blowers depended on to remove heat produced by heaters (during these tests the fan or blower motors are to be disconnected rather than stalled).

Motor-Operated Files

27.21 Normal operation is to consist of cyclical operation until the temperature becomes constant. The file is to be loaded to simulate a condition of unbalance caused by an uneven distribution of its contents. For all but the unbalanced load, the device is to be unloaded. During the operation, the unbalanced load is to be moved one third of the total carrier travel over the path that will impose maximum loading during each operation. One operation every 15 seconds is considered to be a reasonable rate for card-handling appliances.

July 5, 1994

Kyushu Matsushita Electric Co.,Ltd.

CERTIFICATE

Dear Sirs,

We hereby certify that chemical compositions of our RS-138-25 Toner, which are applied to Toner Kit KX-P450 for LBP KX-P4450/ P4450i/ P4451/ P4455 made by Kyushu Matsushita Electric Co.,Ltd., comply with the provisions of the TSCA (Toxic Substances Control Act) Inventory. This product consists of the following.

RS-138-25 Toner

<u>Ingredients</u>	<u>CAS No.</u>	<u>Proportion (% by wt.)</u>
Styrene acrylate copolymer	27136-15-8	86.0%
Carbon black	1333-88-4	6.0%
Polypropylene	25085-53-4	4.5%
Organic pigment	88377-66-6	2.5%
Magnetite	1317-61-9	1.0%

Sincerely yours,

sign *Yasuhiro Nagai*
name Yasuhiro Nagai
General Manager
Safety and Environmental
Control Office
Tomoe-gawa Paper Co., Ltd.