Established on May 9, 2001 Revised on Apr 18, 2005

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

COMPANY NAME : HAKKO CORPORATION

ADDRESS : 4-5, Shiokusa 2-chome, Naniwa-ku, Osaka,

556-0024 Japan

SECTION IN CHARGE : Research & Development Center

PERSON IN CHARGE : Makoto Onda

EMERGENCY TELEPHONE NUMBERS : 81-6-6561-3225

PERSON IN CHARGE : Sales Division

PRODUCT NAME: Filter(No.A1001 for HAKKO 493)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Single-ingredient product or mixture: mixture

Chemical Name: Activated Carbon Sheet

Ingredient	Activated Carbon	Urethane Foam	Adhesive		
			Butyl Acrylate	Methyl	Emulsifier and
				Methacrylate	others
Content	-	-	23%	18.2%	58.8%
	53.55%	38.58%	7.87%		
CAS No.	7440-44-0	-	141-32-2	80-62-6	-

3. HAZARDS IDENTIFICATION

TAXONOMIC GROUP NAME : Not subject to the applicable taxonomical standard.

DANGEROUSNESS: Designated as specific combustibles by the Fire Service Law.

TOXICITY: N/A

ENVIRONMENTAL EFFECTS: No information is available.

4. FIRST-AID MEASURES

IF IN EYES : Do not rub the eyelids. Well flush the eyes with running water and

then see the ophthalmologist for treatment.

IF ON SKIN : Flush with water.

IF INHALED : Rinse out mouth thoroughly with water.

IF INGESTED : Well gargle. If there is any anomaly, see the doctor for treatment.

5. FIRE FIGHTING MEASURES

EXTINGUISHING PROCEDURES : An extinguisher using the following extinguishing media is

applicable.

EXTINGUISHING MEDIA : Water spray, powder, or carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

N/A

7. HANDLING & STORAGE

HANDLING : – Minimize the generation of dust.

If the product is handled in a completely closed place,
 ventilation must be provided to the necessary level for such

work as may be exposed to an oxygen shortage risk.

STORAGE : – Seal the product with polyethylene film and then store it in a

cool, dark place without exposure to direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL CONCENTRATION : N/A **ALLOWABLE CONCENTRATION** : N/A

FACILITIES AND EQUIPMENT: No particular measures are required.

PROTECTIVE GEAR : No particular protective gears are required.

9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE : Odorless black sheet.

BOILING POINT : N/A

STABILITY : Stable at room temperature.

SOLUBILITY Insoluble in water.

HYGROSCOPICITY: Noted.

10. STABILITY & REACTIVITY

IGNITION POINT: 250° CFIRING POINTN/AOXIDIZING PROPERTYN/A

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : N/A

ECOLOGICAL EFFECTS : No data is available.

IRRITATION : No skin irritation.

OTHER TOXICITY : No data is available.

12. ECOLOGICAL INFORMATION

CUMULATIVE EFFECTS : No data is available.

FISH-TOXICITY : No data is available.

DEGRADABILITY : No data is available.

13. DISPOSAL CONSIDERATIONS

Dispose of the product of in accordance with the related regulation.

14. TRANSPORTATION INFORMATION

 Avoid the wetting and rough handling of the package (cardboard, craft paper, polyethylene film, or the like) so that the package is not broken.

15. REGULATORY INFORMATION

- The product is designated as "special inflammables" in the applicable enforcement ordinance based on the Fire Service Law.
- Water Pollution Control Law
- Waste Disposal and Cleaning Law

16. OTHER INFORMATION

None.

This document has been prepared based on the information and data that are available as of this date. Therefore, it may be revised when new information or data has been obtained.

The information and data contained herein are subject to the normal use. The evaluation of dangerousness and toxicity is, therefore, not always applicable. For this reason, the safety precautions suitable for your purpose and method must be taken prior to the use.