Ricoh Corporation MATERIAL SAFETY DATA SHEET

09/07/94

Section I. General Information

MSDS Identifier Code

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Supplier ID: Ricoh Product Code: 4120-39

Identity: 760/790/850 Dispersant

Manufacturer's Name and Address:

Ricoh Corporation 5 Dedrick Place

West Caldwell, NJ 07006

Distributor's Name & Address

Savin Corporation P.O.Box 10270 Stamford, CT 06904

94616

Emergency Telephone Number: (800) 336-6737

Telephone Number for Information: (201) 882-2000, (800) 336-6737

Synonyms & Common Names: Savin Product Code 4537, 760/790/850 Dispersant

Uses: 5030/40 7040/50/50\, 760/65/90 850/95

Hazard Classes: Combustible Liquid N.O.S., (Flammable liquid, n.o.s.,

air/international only)

Chemical Formula: Hydrotreated heavy naphtha (ISOPAR)

Registry numbers

CAS Number: 64742-48-9 RTECS Number: N/App UN Number: 1255

Date Prepared: 07/17/91 Filed/Prepared By: Ricoh CQA/EA Division

Section II. Hazardous Ingredients/Identity Information

Composition

Component	*	CAS #	'OSHA Pel	ACGIH TLV
Hydrotreated heavy naphtha (ISOPAR)	100%	00% 64742-48-9 N/	N/App	mqq 00E
This chemical complies with the United States TSCA.				,

Exposure Limits (TLV/PEL)

OSHA: Not applicable NIOSH: Not applicable

ACGIH: 300 ppm

State: Not applicable

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Other: None

Section III. Physical/Chemical Characteristics

Boiling Point: 161-200C Specific Gravity: 0.75 @ 15C
Vapor Pressure: <10mmHg @ 25C % Volatile by Volume: 100%
Melting Point: Less than -18C Vapor Density (Air=1): Greater than 5

Evaporation Rate (n-BuAc=1): Approx. 0.3

Solubility in Water: Negligible: Less than 0.1%

Appearance and Odor: Clear water white liquid, faint petroleum hydrocarbon

odor.

Section IV. Fire and Explosion Hazard Data

Flash Point and Method: 43C (109.4F) T.C.C.

Explosive Limits: LEL N/App UEL N/App

Comments: Not applicable

Extinguishing Media: Foam, dry chemicals, or carbon dioxide.

Special Fire-Fighting Procedures: If a leak or spill hs ignited, use standard fire-fighting procedures for petroleum based liquids. Minimize breathing gases, vapor, fumes or decomposition products. Fire-fighters should use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

Unusual Fire and Explosion Hazards: Will not occur during normal use.

Section V. Reactivity Data

Stability: Stable

Conditions to Avoid: Not applicable

Incompatibility (Materials to Avoid): Avoid contact with strong oxidizers such as Liquid Cl2 or conc. 02.

Hazardous Decomposition or Byproducts: Carbon monoxide and other decomposition products in the case of incomplete combustion.

Hazardous Polymerization: Will not Occur Conditions to Avoid: Not applicable

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Section VI. Health and Hazard Data

Routes of Entry: Eyes, inhalation, ingestion

Health Hazards of Short-Term exposure (Acute)

Eyes: Slight conjunctival irritation.

Skin: Dermal Rabbit LD50: Greater than 3g/kg (Isopar) irritation under conditions of excessive exposure. (Primary irritation index 1.75)

Mild

Inhalation: Inhalation Rat LD50: Greater than 1000PPM (Isopar) High vapor/aerosol concentrations (greater than approximately 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

Ingestion: Oral Rat LD50: Greater than 10g/kg (Isopar). Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death. Minimal toxicity.

Health Hazards of Long-Term exposure (Chronic): Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquid, vapor, mist or fumes should be minimized.

Carcinogenicity: Not applicable

NTP? Noknown IARC Monographs? Noknown OSHA Regulated? NoI

Signs and Symptoms of Exposure: High vapor concentrations (greater than approximately 1000 ppm) are irritative to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic, and may have other central nervous system effects.

Medical Conditions Generally Aggravated by Exposure: Not applicable

Emergency and First Aid Procedures

First Aid

Eyes: If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides.

Skin: In the case of skin contact, remove any contaminated clothing and cleanse skin thoroughly with waterless hand cleaner followed by washing with soap and water.

Inhalation: If overcome by vapor, remove from exposure and call a physician immediately.

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Ingestion: If ingestion occurs, do not induce vomiting; call a physician immediately.

Additional Information: Not applicable

Section VII. Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth, or other suitable absorbent ot spill areas. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Reep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations. Continue to observe precautions for volatile, combustible vapors from absorbed material.

Waste Disposal Method: Waste liquid should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Disposal regulations vary from locality to locality, therefore, consult your local office of the EPA to determine proper method of disposal.

Precautions to Be Taken in Handling and Storing:

CAUTION - COMBUSTIBLE LIQUID

Keep away from heat, open flame, and sparks. Keep out of reach of children.

Other Precautions: Empty containers retain residue (liquid and/or vapor) and can be dangerous. In order to avoid the risk of explosion, do not pressure or expose containers to heat, flame, sparks, or other sources of ignition.

Section VIII. Control Measures

Respiratory Protection: None needed under normal conditions of use.

Ventilation

Local Exhaust: None needed under normal conditions of use.

Special: None

Mechanical (general): Adequate ventilation

Other: None

Protective Gloves: None needed under normal conditions of use.

Eye Protection: None needed under normal conditions of use.

Other Protective Clothing or Equipment: None needed under normal conditions of

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Work and Hygenic Practices: Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean and dry before reuse. Cleanse skin thoroughly after contact, before breaks and meals, and at the end of work periods. Product is readily removed from skin by waterless hand cleaners followed by washing with soap and water.