



Material Safety Data Sheet for Q-View Magstripe Developer

SECTION 1: GENERAL INFORMATION

Product Name/Trade Name: Q-View Magstripe Developer
Purpose: Magnetic tester used to visually delineate information recorder on magnetic media (tapes, cards, etc.)

Ingredients

	<u>C.A.S. No.</u>	<u>% By Weight</u>
Methyl Nonafluoroisobutyl ether	163702-08-7	
<i>Plus</i>	=	90-94
Methyl Nonafluorobutyl ether	163702-07-6	
Solubility couplers		1 – 3
Aliphatic alcohols	67-63-0	4 – 6
Iron Powder (1 – 3 micron)	7439-87-6	1 gram/100 ml
CO ₂ (10 – 15 psi) is present as the propellant in the aerosol package of Q-View.		

Physical Properties

Physical Form: Liquid suspension of iron powder
Autoignition temperature: > 443°C
Flash Point: No flash point, per ASTM D 3278
Flammable Limits – LEL: 4% [ASTM-E681]
Boiling Range: 54°C
Density: 1.48 gms/ml
Vapor Density: 7.1 [AIR = 1]
Solubility in Water: > 10%
Evaporation Rate: 58 [Ref Butyl acetate = 1]
Evaporation Rate – In weighing dish open to ambient air: 62-75% of the evaporation rates of CFC 113 & of CFC 141B under same conditions in the range 16°C-32°C.

Stability and Reactivity

Q-View is stable and non-polymerizable. However, it should not contact strong bases (NaOH, etc.), alkali metals (Li, K, Na) or strong oxidizing agents.

301 Reagan Street
P.O. Box 557
Sunbury, PA 17801 USA
800-717-8007
570-286-7447
Fax 570-286-2649
www.q-card.com



The small amounts of hydrochloric and hydrofluoric acids resulting from exposure of Q-View to extreme heat, react with the iron powder in the product and are immobilized as the iron salts. Hydrogen Fluoride has an ACGIH Threshold Ceiling of 3ppm (as fluoride) and OSHA PEL of 3 ppm of fluoride as an eight hour Time-Weighted Average and 6ppm of fluoride as a Short Term Exposure Limit, well above the odor threshold of 0.04 ppm for HF. This provides for detection before harmful buildup occurs.

SECTION 2: HEALTH CONSIDERATIONS

Q-View should be used with adequate ventilation and the proper respect afforded all laboratory chemicals. Since the components of Q-View can decompose at very high temperatures, it should not be used near ovens, hot plates, electric arcs or open flames. Cigarette smoking is to be avoided while using Q-View.

Potential Health Effects and Symptoms

RECOMMENDED PROTECTIVE DEVICES AND TREATMENT

A. Protection

Eyes: Safety glasses – side shields

Skin: Gloves – polyethylene

Inhalation: Use adequate ventilation

Ingestion: Do not eat, drink or smoke when using Q-View.

B. Symptoms of Irritation

Contact with Q-View might cause the following:

1. Eyes, skin – mild irritation, itching.
2. Inhalation – may cause upper respiratory irritation, sneezing, hoarseness, and headache.
3. Ingestion – may be absorbed and cause:
Central nervous system depression, headache, abdominal pain, diarrhea, dizziness, slowed reaction time, giddiness or unconsciousness.

C. Treatment

1. Remove person to fresh air, flush eyes with large quantities of water, wash skin contact with soapy water and rinse with water.
2. If swallowed, do not induce vomiting. Give 2 large glasses of water and get immediate medical attention.

NOTE: Never give anything by mouth to an unconscious person.

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D. Spills and Leaks

If the Q-View container leaks, reclaim as much as possible. If this is difficult or if Q-View is spilled, then mop it up with paper toweling and allow toweling to dry outside. Remove leaking container to hood or outside location.

SECTION 3: ECOLOGICAL CONSIDERATIONS

Ozone Depletion

Q-View has near-zero ozone depletion potential (ODP).

The U.S. Environmental Protection Agency (EPA) has listed the major ingredients of Q-View as acceptable substitutes for ozone depleting substances in specific solvent and aerosol industry applications under its Significant New Alternatives Program (SNAP), Section 612 of the Clean Air Act.

ATMOSPHERIC LIFETIME:

Approximately 4.7 years and 3.7 years for methyl nonafluoroisobutyl ether and methyl nonafluorobutyl ether respectively.

Isopropyl alcohol has an atmospheric half-life < 2 days.

Potential Environmental Effects

AQUATIC TOXICITY:

Test results indicate that methyl nonafluoroisobutyl ether and methyl nonafluorobutyl ether have insignificant toxicity to aquatic organisms. Isopropyl alcohol has minimal toxicity to aquatic organisms.

BIOCONCENTRATION:

Methyl nonafluoroisobutyl ether and methyl nonafluorobutyl ether are water insoluble and very volatile. These components move rapidly from aquatic or terrestrial environments to the atmosphere. Bioconcentration is unlikely to occur.

Isopropyl alcohol has an octanol/water partition coefficient value < 3 indicating it is unlikely to bioconcentrate.

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Other Information

311/312 Hazard Categories and Classifications

Fire Hazard – No

Pressure Hazard – No

Reactivity Hazard – No

SECTION 4: TRANSPORTATION INFORMATION

This includes the spray style, dropper style, and bulk containers.

DOTG: Dept. of Transportation – Ground (US): Not Hazardous

DOTW: Dept. of Transportation – Vessel (US): Not Hazardous

IATA: International Air Transport Assn. (United Nations): Not Hazardous

IMO: International Maritime Organization (United Nations): Not Hazardous

SECTION 5: HANDLING OF LEAKS AND DISPOSAL INFORMATION

Ventilate area with fresh air. Reclaim contents or collect in a closed container and transfer to industrial incinerator capable of handling halogenated materials.

EPA Hazardous Waste Number (RCRA): Not Regulated.