



# MATERIAL SAFETY DATA SHEET

## D-70

Page 1 of 2

Dated 8/09

### 1 Identification of the substance/preparation and of the company

**Trade name:** D-70

**Application of the substance / preparation:** Inspection penetrant developer "forms d & e" per AMS-2644/AMS-2647/ASTM E-1417.

**Manufacturer/Supplier:** Met-L-Chek Company

1639 Euclid Street

Santa Monica, California, 90404, U.S.A.

Phone: 310-450-1111

Fax : 310-452-4046

E-mail: info@met-l-chek.com

http://www.met-l-chek.com

**Information in case of emergency:** Chemtrec 1-800-424-9300

### 2 Hazards identification

**Hazard description:** Highly Flammable / Eye Irritant

**NFPA rating**

	Bulk	Aerosol
Health	1	1
Flammability	3	4
Reactivity	0	0

**WHMIS (Canada)**

B2,D2B

A, B5,D2B

**EC 1907/2006**



Xi Irritant

F Highly flammable

**Information concerning particular hazards for human and environment:**

R 11 Highly flammable.

R 36 Irritating to eyes.

R 67 Vapors may cause drowsiness and dizziness.

### 3 Composition/information on ingredients

**Ingredients:**

**CAS #**

**% by Weight (in bulk)**

**% by Weight (in aerosol)**

Isopropanol (2-propanol)

67-63-0

80-90

30-50

Propellant(mixed isopropane & butane)

674-98-6 & 106-97-8

40-60

**EINECS Number:** 200-661-7

### 4 First aid measures

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin. Wash exposed area with soap and water.

**After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** Do not induce vomiting. Small amounts are not expected to cause significant harm, call a physician.

### 5 Fire-fighting measures

**Suitable extinguishing agents:** Foam, dry powder, carbon dioxide (CO<sub>2</sub>)

**For safety reasons unsuitable extinguishing agents:** Water spray.

**Special hazards caused by the substance, its products of combustion or resulting gases:** Carbon monoxide and carbon dioxide

**Special protective equipment for fire-fighters:** Wear self-contained respiratory protective device. Wear fully protective suit.

**Flash Point:** 11.6°C(53°F)TCC

**Explosive Limit:** 2%

**Autoignition Temperature:** 398.8°C (750°F)

### 6 Accidental release measures

**Spill:** Ventilate area. Remove all sources of ignition. Wear protective gear. Collect liquid in an appropriate container or absorb with an inert material such as vermiculite, dry sand, or earth; **DO NOT** use combustible materials. Place in a chemical waste container. **DO NOT** flush to sewer.

### 7 Handling and storage

**Handling:** Protect against physical damage. Use non sparking tools. Ground containers when transferring product. Containers may be hazardous when empty since residue liquid and vapors may be present.

**Storage:** Store in a cool, dry well-ventilated location, away from areas where fire hazard or ignition sources may exist. Store and use in NO SMOKING area. Keep containers closed when not in use.

### 8 Exposure controls/personal protection

**Eye Protection:** Chemical splash goggles, safety glasses are advised.

**Skin Protection:** Wear resistant gloves such as Nitrile Rubber, impervious clothing and boots are suggested as well.

**Exposure Limits:** (TLV): 400 ppm (TWA), 500 ppm (STEL).

**Ventilation System:** A system of local or general exhaust is recommended to keep employee exposure below the airborne exposure limits. If exposure limit is exceeded use organic vapor respirator.



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## D-70

Page 2 of 2

Dated 8/09

### 9. Physical properties

**Initial Boiling Point:** 82.2°C (180°F) @ 760 mm Hg.

**Specific Gravity:** 0.856 @ 15.5°C(60°F)

**Percent Volatile:** 88 %, VOC's-710 gr/L

**Appearance:** milky white suspension in clear liquid.

**Vapor Pressure :** 43 hPa (0.032 cm Hg) @ 20°C(68° F)

**Specific Vapor Density Air=1:** 2.07

**Evaporation Rate (Ethyl Ether=1):** 1.7

**Solubility in Water:** 88 %

### 10. Stability and reactivity

**Thermal decomposition:** Stable under ordinary conditions of use and storage.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Avoid contact with acetaldehyde, acids, chlorine, ethylene oxide, isocyanate and strong oxidizing agents.

### 11 Toxicological information

**Acute toxicity:** Contains no known or suspected carcinogens.

**LD/LC50 values relevant for classification:**

Oral LD50 5045 mg/kg (rat)

Dermal LD50 12800 mg/kg (rabbit)

Inhalation LC50/4 h >20 mg/l (rat)

### 12 Ecological information

**Aquatic toxicity:** EC50/ 48 h >100 mg/l (daphnia)

LC50/ 96 h >100 mg/l (Fish)

**General notes:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

**Recommendation:** Dispose of container and unused contents with a licensed waste facility. Empty containers may contain flammable residue and vapors. Must not be disposed together with household garbage. Do not allow product to reach sewage system. Puncture (wear face shield) and drain aerosols. Collect all waste in suitable and labelled containers and dispose according to local legislation.

**European waste catalogue** 07 07 04

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14. Transportation

#### USA DOT Information- 49CFR172.101

Shipping name:

Label:

Hazard class:

Identification #:

Packing Group:



#### Bulk

Isopropanol

Flammable liquid

3

UN1219

II

#### Aerosol

Consumer commodity

ORM-D

ORM-D

none

none

#### IATA

Shipping name:

Label:

Hazard class:

Identification #:

Packing Group:



#### Bulk

Isopropanol

Flammable liquid

3

UN1219

II



#### Aerosol

Aerosols, flammable

Flammable gas

2.1

UN1950

na

### 15.Regulatory information

TSCA: Listed

CERCLA RQ- 49CFR302.4(a): None listed

SARA 302 Components-40CFR355 appendix A: None

Section 311/312 Hazard Class-40CFR370.2: Immediate (X), Delayed (X), Fire (X), Reactive ( ), Sudden release of pressure ( )

SARA 313 components-40CFR372.65: None.

California Proposition 65- Not known to contain any listed materials.

New Jersey RTK label- Isopropyl Alcohol CAS# 67-63-0

Pennsylvania RTK label- 2-propanol CAS# 67-63-0

### 16. Other information

The information accumulated herein is believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Supersede MSDS dated 4/27/07

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**Met-L-Chek Company, 1639 Euclid Street, Santa Monica, California, 90404, U.S.A.**

**Phone: 310-450-1111 Fax: 310-452-4046 E-mail: info@met-l-chek.com Web: www.met-l-chek.com**