



PENETRANT PROFESSOR APPROVED

MATERIAL SAFETY DATA SHEET

D-70

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Dated 4/12

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

EC 1907/2006



Xi Irritant
F Highly flammable

WHMIS (Canada) B2,D2B A, B5,D2B

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 (CO₂)

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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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 8/09

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