

Safety Data Sheet

According to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66

Revision Date: 2012-05-31
Reason for Revision: Section 14 Updated

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: Organic Solvent

Additional Product Codes: ORGANIC40 ORGANIC40ES
ORGANIC40IT ORGANIC40GR
ORGANIC400 ORGANIC400ES
ORGANIC400IT ORGANIC40GR

Application: Determination of Olive Oil Acidity

Company Information (USA):

Hanna Instruments, Inc.
584 Park East Dr, Woonsocket, Rhode Island, USA 02895

Technical Service Contact Information:

1-800-426-6287 (8:30AM - 5:00PM ET)
+1-401-766-4260 (8:30AM - 5:00PM ET)

USA Emergency Contact Information:

1-800-424-9300 (Chemtrec 24Hr. Emergency)

International Emergency Contact Information:

+1-703-527-3887 (Chemtrec 24Hr. Emergency)

E-mail Address:

tech@hannainst.com

SECTION 2: HAZARD IDENTIFICATION

Extremely Flammable. May form explosive peroxides. Harmful if swallowed. Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component:	Diethyl Ether	Ethanol
EC-No.:	200-467-2	200-578-6
CAS-No.:	60-29-7	64-17-5
Hazard:	F+, Xn	F
Phrases:	R: 12-19-22-66-67	R: 11
Content:	> 60% - < 70%	> 30% - < 40%

SECTION 4: FIRST AID MEASURES

After Inhalation:	Remove to fresh air. If necessary, apply mouth to mouth resuscitation or mechanical ventilation. Keep airways free.
After Skin Contact:	Wash affected area with plenty of water.
After Eye Contact:	Rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist.
After Swallowing:	Avoid vomiting. Summon doctor. Keep airways free.
General Information:	Not available

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Foam, Dry Powder, Carbon Dioxide

Special Risks:

Combustible. Vapors heavier than air. Forms explosive mixtures with air at ambient temperatures. Development of hazardous combustion gases or vapors possible in the event of fire. Keep away from sources of ignition.

Special Protective Equipment:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Additional Information:

Keep away sources of ignition. Beware of backfiring. Take measures to prevent electrostatic charging. Prevent fire-fighting water from entering surface water or groundwater.

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SECTION 6: ACCIDENTAL RELEASE MEASURES***Personal Precautions:***

Avoid substance contact. Do not inhale vapors. Ensure supply of fresh air in enclosed rooms.

Environmental Precautions:

Do not discharge into the drains/surface waters/groundwater.

Additional Notes:

Take up with liquid-absorbent material. Clean up affected area and dispose according to local regulation.

SECTION 7: HANDLING AND STORAGE***Handling:***

Takes measures to prevent electrostatic charging. Keep away from sources of ignition. Work under hood. Do not inhale substance. Avoid generation of vapors/aerosols.

Storage:

Tightly closed. In a well ventilated place. Keep away from sources of ignition and heat. Store at room temperature (+15 to +25 °C recommended). Protect from light and moisture. Accessible only for authorized persons.

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SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Diethyl ether					
TWA (8hr)	308 mg/m ³	Belgium	TWA (8hr)	1210 mg/m ³	Canada (Ontario)
TWA (8hr)	1210 mg/m ³	Canada (Quebec)	TWA (8hr)	308 mg/m ³	France
TWA (8hr)	1200 mg/m ³	Germany	TWA (8hr)	1200 mg/m ³	Greece
TWA (8hr)	308 mg/m ³	Hungary	TWA (8hr)	308 mg/m ³	Italy
TWA (8hr)	100 mg/m ³	Netherlands	TWA (8hr)	300 mg/m ³	Poland
TWA (8hr)	400 ppm	Portugal	TWA (8hr)	300 mg/m ³	Romania
TWA (8hr)	308 mg/m ³	Spain	TWA (8hr)	310 mg/m ³	UK
TWA (8hr)	400 ppm	USA (ACGIH)	TWA (8hr)	400 ppm	USA (OSHA)
Ethanol					
TWA (8hr)	1907 mg/m ³	Belgium	TWA (8hr)	1900 mg/m ³	Canada (Ontario)
TWA (8hr)	1880 mg/m ³	Canada (Quebec)	TWA (8hr)	1900 mg/m ³	France
TWA (8hr)	960 mg/m ³	Germany	TWA (8hr)	1900 mg/m ³	Greece
TWA (8hr)	1900 mg/m ³	Hungary	TWA (8hr)	260 mg/m ³	Netherlands
TWA (8hr)	1900 mg/m ³	Poland	TWA (8hr)	1000 ppm	Portugal
TWA (8hr)	1900 mg/m ³	Romania	TWA (8hr)	1910 mg/m ³	Spain
TWA (8hr)	1920 mg/m ³	UK	TWA (8hr)	1000 ppm	USA (ACGIH)
TWA (8hr)	1000 ppm	USA (OSHA)			

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

As appropriate to quantity handled.

Respiratory Protection:

Required when vapors/aerosols are generated. Work under hood.

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Characteristic odor	Density at 20°C:	0.75 g/cm ³
Melting Point:	ND	Boiling Point:	42 °C	Solubility:	Partially soluble
pH at 20°C:	NA	Explosion Limit:	NA	Flash Point:	ND
Thermal Decomp.:	NA				

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SECTION 10: STABILITY AND REACTIVITY***Conditions to be Avoided:***

Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Light sensitive; sensitive to air. Highly flammable. Unsuitable working materials: various plastics, rubber. Explosive with air in a vaporous/gaseous state.

Hazardous Decomposition Products:

Peroxides

Substances to be Avoided:

Alkali metals, alkaline earth metals, alkali oxides, halogens, halogen-halogen compounds, nonmetals, nonmetallic oxyhalides, strong oxidizing agents, chromyl chloride, turpentine oils and/or turpentine substitutes, nitrates, metallic chlorides

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SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

Quantitative data on the toxicity of this product is not available.

Potential Health Effects:

- Inhalation:** Mucosal irritation, absorption, drowsiness.
Skin Contact: Drying-out effect resulting in rough and chapped skin. Dermatitis.
Eye Contact: Slight irritations.
Ingestion: Nausea and vomiting, absorption. After ingestion the substance may cause a risk of aspiration. Passage into the lung can result in a condition resembling pneumonia.
Further Data: After absorption: salivation, euphoria, dizziness, inebriation, narcosis, ataxia, collapse, unconsciousness, coma, respiratory paralysis. narcotic! The product should be handled with the usual care when dealing with chemicals.

Component Toxicity

Acute Toxicity:

Diethyl ether

LC50: Inhalation - Rat - 10960 ppm

LD50: Oral - Rat - 1215 mg/kg

Ethanol

LD50: Oral - Rat - 7060 mg/kg

Chronic Toxicity:

Phenolphthalein

NTP: Reasonably anticipated to be carcinogenic to humans

IARC Group 2B: Possibly carcinogenic to humans

Additional Data:

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Ethanol – as the pure substance

Specific symptoms in animal studies:

Eye irritation test (rabbit): No irritation (OECD 405).

Skin irritation test (rabbit): No irritation (OECD 404).

Subacute to chronic toxicity

Sensitization:

Sensitisation test (Magnusson and Kligman): negative. (IUCLID)

Bacterial mutagenicity: Salmonella typhimurium: negative. (in vitro) (National Toxicology Program)

Further toxicological information

After inhalation of vapours: slight mucosal irritations. Risk of absorption.

After skin contact: After long-term exposure to the chemical: dermatitis.

After eye contact: Slight irritations.

After swallowing of large amounts: nausea and vomiting.

Systemic effects: euphoria.

After absorption of large quantities: dizziness, inebriation, narcosis, respiratory paralysis.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Diethyl ether – as the pure substance

Specific symptoms in animal studies:

Eye irritation test (rabbit): Slight irritations.

Skin irritation test (rabbit): No irritation.

Subacute to chronic toxicity

Sensitization:

Experience in man: No sensitizing effect.

Bacterial mutagenicity: Ames test: negative.

Mutagenicity (mammal cell test): negative.

Further toxicological information

Narcotic!

After inhalation of vapours: mucosal irritations, absorption, drowsiness.

After skin contact: Drying-out effect resulting in rough and chapped skin. dermatitis.

After eye contact: Slight irritations.

After swallowing: absorption.

After accidental swallowing the substance may pose a risk of aspiration. Passage into the lung (vomiting!) can result in a condition resembling pneumonia (chemical pneumonitis).

After absorption: salivation, euphoria, ataxia (impaired locomotor coordination), inebriation, collapse, unconsciousness, coma.

Cannot be excluded: respiratory paralysis, death.

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SECTION 12: ECOLOGICAL INFORMATION

Quantitative data on the ecological effect of this product is not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Diethyl Ether as the pure substance:

Biologic degradation:

Slightly biodegradable.

Behavior in environmental compartments:

Distribution: log p(o/w): 0.89 (experimental).

No bioaccumulation is to be expected (log P(o/w) <1).

Ecotoxic effects:

Biological effects:

Substance floats on the water surface.

When used properly, no impairments in the function of waste- water-treatment plants are to be expected.

Fish toxicity: P.promelas LC50: 2600 mg/L /96 h.

Daphnia toxicity: Daphnia magna EC50: 165 mg/L /24 h.

Bacterial toxicity: Photobacterium phosphoreum EC50: 5600 mg/L /15 min microtox test.

Further ecologic data:

TOD: 2.60 g/g

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Ethanol as the pure substance:

Abiotic degradation:

Rapid degradation. (air)

Biologic degradation:

Biodegradation: 94 % (OECD 301 E);

Readily biodegradable.

Behavior in environmental compartments:

Distribution: log Pow: -0.31 (experimental) (Lit.);

No bioaccumulation is to be expected (log Pow <1).

Ecotoxic effects:

Biological effects:

In high concentrations: Harmful effect on aquatic organisms. When used properly, no impairments in the function of waste- water-treatment plants are to be expected.

Fish toxicity: L.idus LC50: 8140 mg/L /48 h (IUCLID);

Daphnia toxicity: Daphnia magna EC50: 9268-14221 mg/L /48 h (IUCLID);

Maximum permissible toxic concentration:

Algal toxicity: Sc.quadricauda IC5: 5000 mg/L /7 d (Lit.); Bacterial toxicity: Ps.putida EC5: 6500 mg/L /16 h (IUCLID); Protozoa: E.sulcatum EC5: 65 mg/L /72 h (Lit.).

Further ecologic data:

BOD5: 0.93-1.67 g/g (Lit.); COD: 1.99 g/g (IUCLID); TOD: 2.10 g/g (Lit.); BOD 74 % from TOD /5 d

(IUCLID); COD 90 % from TOD (Lit.);

Further Data: No ecological problems are to be expected when the product is handled and used with due care and attention. DO NOT ALLOW TO ENTER WATERS, WASTE WATERS, OR SOIL!

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: TRANSPORTATION INFORMATION

	Land (ADR/RID):	Sea (IMDG):	Air (ICAO/IATA):
UN No.:	1993	1993	1993
Proper Shipping Name:	Flammable liquid, n.o.s. (diethyl ether/ethanol mixture)	Flammable liquid, n.o.s. (diethyl ether/ethanol mixture)	Flammable liquid, n.o.s. (diethyl ether/ethanol mixture)
Class (Sub Risk):	3	3	3
Packing Group:	II	II	II

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SECTION 15: REGULATORY INFORMATION***Labeling according to EC Directives:*****Symbol:** F+: Extremely Flammable
Xn: Harmful**R-phrases:** 12-19-22-66-67: Extremely flammable. May form explosive peroxides. Harmful if swallowed. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.**S-phrases:** 9-16-29-33: Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. Do not empty into drains. Take precautionary measures against static discharges.**Contains:** Diethyl Ether, Ethanol**SECTION 16: OTHER INFORMATION*****Text of R-phrases under Section 3***

11: Highly flammable.
12: Extremely Flammable.
19: May form explosive peroxides.
22: Harmful if swallowed.
66: Repeated exposure may cause skin dryness or cracking.
67: Vapours may cause drowsiness and dizziness.

Revision Information**Revision Date:** 2012-05-31**Supersedes edition of:** 2009-06-10**Reason for revision:** Section 14 Updated***Legend***

NA: Not Applicable
ND: Not Determined

THE INFORMATION CONTAINED HEREIN IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE. IT CHARACTERIZES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT.