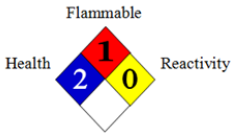
NFPA & HMIS Ratings



Product Name: MICO-SOLV PRE-INJECTION FLUID

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

Material Name
MICO-SOLV PRE-INJECTION FLUID
Synonyms
MICO-SOLV
Product Use
Funeral Home Embalming Products.
Restrictions on Use
This product is to be used by Licensed Embalmers Only.
Details of the supplier of the safety data sheet

Dr. G.H. Michel - Restor-Skin Company
PO Box 337
202 Sixth Street
East Brady, PA 16028
Phone: 1-800-635-3403
Emergency Phone #: 1-724-526-3565
E-mail: fourcogs16028@yahoo.com

Product Code
Product Size(s): 16 oz. Bottles

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Acute Toxicity - Inhalation - Vapor - Category 3
Serious Eye Damage/Eye Irritation - Category 2A
Reproductive Toxicity - Category 1A
Specific Target Organ Toxicity - Single Exposure - Category 1 (Central Nervous System , kidneys , liver , testes , Hematopoietic System)
Specific Target Organ Toxicity - Repeated Exposure - Category 1 (hematopoietic system , testes)
Specific Target Organ Toxicity - Repeated Exposure - Category 2 (blood , Hematopoietic System , kidneys)
GHS Label Elements
Symbol(s)

Signal Word
Danger

Hazard Statement(s)

Toxic if inhaled.
Causes serious eye irritation.
May damage fertility or the unborn child.
Causes damage to organs.
Causes damage to organs through prolonged or repeated exposure.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

Response

If exposed: Call a POISON CENTER or doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Specific treatment (see label).

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Statement of Unknown Toxicity

64.5% of the mixture consists of ingredient(s) of unknown acute toxicity.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
110-80-5	2-Ethoxyethanol	20-25
111-90-0	Diethylene glycol monomethyl ether	10-15
57-55-6	Propylene glycol	5-10
6132-04-3	Trisodium citrate dihydrate	1-5

The chemical identity and/or percentage of composition is being withheld as a trade secret.

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor.

Skin

Gently wash with plenty of soap and water. Get medical attention, if needed.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Call a POISON CENTER or doctor/physician if you feel unwell.

Most Important Symptoms/Effects

Acute

Toxic if inhaled. Causes serious eye irritation. Causes damage to central nervous system, kidneys, liver, testes, Hematopoietic System.

Delayed

May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Hematopoietic System, testes. May cause damage to organs through prolonged or repeated exposure: blood, Hematopoietic System, kidneys.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, regular foam, dry chemical, water.

Unsuitable Extinguishing Media

Do not use water jet.

Special Hazards Arising from the Chemical

Slight fire hazard.

Hazardous Combustion Products

Oxides of carbon

Fire Fighting Measures

Use methods suitable to fight surrounding fire. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Avoid inhalation of material or combustion by-products.

Special Protective Equipment and Precautions for Firefighters

Wear personal protective clothing and equipment such as self-contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all ignition sources. Stop leak if you can do it without risk. Absorb spill with inert material. Shovel material into appropriate container for disposal. Do not touch or walk through spilled product. Avoid dust generation and accumulation. Avoid breathing vapors or fumes. Avoid release to the environment.

Environmental Precautions

Avoid release to the environment. Collect spillage.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Further information on storage conditions: Keep away from heat, sparks, or flame. Store away from strong acids.

Incompatible Materials

Strong acids

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

2-Ethoxyethanol	**110-80-5**
ACGIH:	5 ppm TWA
	Skin - potential significant contribution to overall exposure by the cutaneous route
NIOSH:	0.5 ppm TWA ; 1.8 mg/m3 TWA
	Potential for dermal absorption
	500 ppm IDLH
Europe:	2 ppm TWA ; 8 mg/m3 TWA
	Possibility of significant uptake through the skin
OSHA (US):	200 ppm TWA ; 740 mg/m3 TWA
	prevent or reduce skin absorption
Mexico:	50 ppm TWA VLE-PPT ; 185 mg/m3 TWA VLE-PPT
	100 ppm STEL [PPT-CT]; 370 mg/m3 STEL [PPT-CT]
	Skin - potential for cutaneous absorption

EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures

There are no biological limit values for any of this product's components.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

2-Ethoxyethanol (110-80-5)

100 mg/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: 2-Ethoxyacetic acid

Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear chemical safety goggles with a face shield to protect against skin and eye contact when appropriate.

Skin Protection

Wear appropriate work clothing.

Respiratory Protection

Respiratory protection is required for not sufficiently ventilated working places and during the spraying processing.

Glove Recommendations

Wear appropriate chemical resistant gloves: neoprene

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light pink liquid	**Physical State**	liquid
Odor	sweet	**Color**	light pink
Odor Threshold	Not available	**pH**	Not available
Melting Point	Not available	**Boiling Point**	212 °F (approx.)
Boiling Point Range	Not available	**Freezing point**	Not available
Evaporation Rate	Not available	**Flammability (solid, gas)**	Not available
Autoignition Temperature	Not available	**Flash Point**	>101 °C (>213.8 °F)
Lower Explosive Limit	Not available	**Decomposition**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	Not available
Vapor Density (air=1)	Not available	**Specific Gravity (water=1)**	Not available
Water Solubility	100 %	**Partition coefficient:**	Not available
Viscosity	Not available	**Solubility (Other)**	Not available
Density	Not available	**Molecular Weight**	Not available

Other Information

No additional information available for the product.

Section 10 - STABILITY AND REACTIVITY

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Hazardous polymerization is not expected to occur.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Keep away from incompatible materials.

Incompatible Materials

Strong acid.

Hazardous decomposition products

Oxides of carbon

Thermal decomposition products

Oxides of carbon.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Toxic if inhaled.

Skin Contact

May cause slight skin irritation.

Eye Contact

Causes serious eye irritation.

Ingestion

No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

2-Ethoxyethanol (110-80-5)

Oral LD50 Rat 2800 mg/kg

Dermal LD50 Rabbit 3300 mg/kg

Inhalation LC50 Rat 4267 ppm 4 h

Diethylene glycol monoethyl ether (111-90-0)

Oral LD50 Rat 10502 mg/kg

Dermal LD50 Rabbit 9143 mg/kg

Inhalation LC50 Rat >5240 mg/m3 4 h (no deaths occurred)

Propylene glycol (57-55-6)

Oral LD50 Rat 20 g/kg

Dermal LD50 Rabbit 20800 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Inhalation - Vapor	9.6737 mg/L
Oral	> 2000 mg/kg

Immediate Effects

Toxic if inhaled. Causes serious eye irritation. Causes damage to central nervous system, kidneys, liver, testes, Hematopoietic System.

Delayed Effects

May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: Hematopoietic System, testes. May cause damage to organs through prolonged or repeated exposure: blood, Hematopoietic System, kidneys.

Irritation/Corrosivity Data

Causes serious eye irritation.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

Germ Cell Mutagenicity

No data available.

Tumorigenic Data

No data available

Reproductive Toxicity

May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Central Nervous System, kidneys, liver, testes, Hematopoietic System

Specific Target Organ Toxicity - Repeated Exposure

Hematopoietic System, testes, blood, kidneys

Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

No data available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

2-Ethoxyethanol	**110-80-5**
Fish:	LC50 96 h Lepomis macrochirus >10000 mg/L [static]; LC50 96 h Pimephales promelas >0.1 mg/L [static]
Algae:	EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >10000 mg/L IUCLID
Diethylene glycol monoethyl ether	**111-90-0**
Fish:	LC50 96 h Lepomis macrochirus 10000 mg/L [static]; LC50 96 h Lepomis macrochirus 19100 - 23900 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 11400 - 15700 mg/L [flow-through]; LC50 96 h Pimephales promelas 11600 - 16700 mg/L [flow-through]
Invertebrate:	EC50 48 h Daphnia magna 3940 - 4670 mg/L IUCLID
Propylene glycol	**57-55-6**
Fish:	LC50 96 h Oncorhynchus mykiss 51600 mg/L [static]; LC50 96 h Oncorhynchus mykiss 41 - 47 mL/L [static]; LC50 96 h Pimephales promelas 51400 mg/L [static]; LC50 96 h Pimephales promelas 710 mg/L
Algae:	EC50 96 h Pseudokirchneriella subcapitata 19000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L [Static] EPA
Trisodium citrate dihydrate	**6132-04-3**
Fish:	LC50 96 h Poecilia reticulata 18000 - 32000 mg/L (related to Trisodium citrate)
Invertebrate:	EC50 48 h Daphnia magna 5600 - 10000 mg/L IUCLID (related to Trisodium citrate)

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with federal, state, provincial, and local regulations. The responsibility for proper waste disposal lies with the owner of the waste.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components

Section 14 - TRANSPORT INFORMATION

US DOT Information:
UN/NA #: Not regulated as a hazardous material

IATA Information:
UN#: Not regulated as a hazardous material

ICAO Information:
UN#: Not regulated as a hazardous material

IMDG Information:
UN#: Not regulated as a hazardous material

TDG Information:
UN#: Not regulated as a hazardous material

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

2-Ethoxyethanol	**110-80-5**
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
TSCA 12b:	Section 5 , 1 % de minimus concentration
Diethylene glycol monoethyl ether	**111-90-0**
SARA 313:	1 % de minimis concentration (applies to R-(OCH2CH2)n-OR', where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R' = H or Alkyl C7 or less, or OR' consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate, Chemical Category N230) (related to Glycol ethers)

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
2-Ethoxyethanol	**110-80-5**	Yes	Yes	Yes	Yes	Yes
Diethylene glycol monoethyl ether	**111-90-0**	No	No	Yes	Yes	Yes
Propylene glycol	**57-55-6**	No	No	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects

2-Ethoxyethanol	**110-80-5**
Repro/Dev. Tox	developmental toxicity , 1/1/1989
	male reproductive toxicity , 1/1/89

Canada Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

2-Ethoxyethanol	**110-80-5**
	0.1 %
Diethylene glycol monoethyl ether	**111-90-0**
	1 %
Propylene glycol	**57-55-6**
	1 %

Component Analysis - Inventory

2-Ethoxyethanol (110-80-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Diethylene glycol monoethyl ether (111-90-0)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Propylene glycol (57-55-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Trisodium citrate dihydrate (6132-04-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
No	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	Yes

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: April 28, 2016 / SDS Update Rev 1: October 10, 2016 / SDS Update Rev 2: May 17, 2018

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KECI - Korea Existing Chemicals Inventory; KECL – Korea Existing Chemicals List; KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; NDSL – Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorization, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.