

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Immunocal

Product Code: 1414-1; 1414-32

Intended Use of the Product

Use of the Substance/Mixture: No use is specified.

Name, Address, and Telephone of the Responsible Party

Company

StatLab Medical Products

2090 Commerce Drive

McKinney, TX 75069

800-442-3573

www.statlab.com

Emergency Telephone Number

Emergency Number : CHEMTREC 800-424-9300 (USA & Canada)

CHEMTREC 703-527-3887 (International)

Non-transport 800-225-8867 (USA)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Skin Corrosion 1B H314

Eye Damage 1 H318

Full text of H-phrases: see section 16

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

:



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

Precautionary Statements (GHS-US)

: P260 - Do not breathe vapors, mist, or spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P280 - Wear protective gloves, protective clothing, and eye protection.

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353+P363 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a poison center or doctor.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards

May be corrosive to respiratory tract.

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Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Formic acid	(CAS No) 64-18-6	12	Flammable Liquid 4, H227 Acute Toxicity 4 (Oral), H302 Acute Toxicity 3 (Inhalation:vapor), H331 Skin Corrosion 1A, H314 Eye Damage 1, H318

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. If you feel unwell, seek medical advice.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with plenty of water for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage.

Inhalation: Contact may cause immediate severe irritation progressing quickly to chemical burns.

Skin Contact: Corrosive. Causes burns. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: Causes serious eye damage. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Powder, alcohol-resistant foam, water spray, carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: May be mildly corrosive to some materials.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing.

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For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store locked up.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Amines. Non-coated; base metals.

Specific End Use(s)

No use is specified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Formic acid (64-18-6)		
Mexico	OEL TWA (mg/m ³)	9 mg/m ³
Mexico	OEL TWA (ppm)	5 ppm
USA ACGIH	ACGIH TWA (ppm)	5 ppm
USA ACGIH	ACGIH STEL (ppm)	10 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	9 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	5 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	9 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	5 ppm
USA IDLH	US IDLH (ppm)	30 ppm
Alberta	OEL STEL (mg/m ³)	19 mg/m ³
Alberta	OEL STEL (ppm)	10 ppm
Alberta	OEL TWA (mg/m ³)	9.4 mg/m ³
Alberta	OEL TWA (ppm)	5 ppm
British Columbia	OEL STEL (ppm)	10 ppm
British Columbia	OEL TWA (ppm)	5 ppm
Manitoba	OEL STEL (ppm)	10 ppm
Manitoba	OEL TWA (ppm)	5 ppm
New Brunswick	OEL STEL (mg/m ³)	19 mg/m ³
New Brunswick	OEL STEL (ppm)	10 ppm

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New Brunswick	OEL TWA (mg/m ³)	9.4 mg/m ³
New Brunswick	OEL TWA (ppm)	5 ppm
Newfoundland & Labrador	OEL STEL (ppm)	10 ppm
Newfoundland & Labrador	OEL TWA (ppm)	5 ppm
Nova Scotia	OEL STEL (ppm)	10 ppm
Nova Scotia	OEL TWA (ppm)	5 ppm
Nunavut	OEL STEL (mg/m ³)	18 mg/m ³
Nunavut	OEL STEL (ppm)	10 ppm
Nunavut	OEL TWA (mg/m ³)	9 mg/m ³
Nunavut	OEL TWA (ppm)	5 ppm
Northwest Territories	OEL STEL (mg/m ³)	18 mg/m ³
Northwest Territories	OEL STEL (ppm)	10 ppm
Northwest Territories	OEL TWA (mg/m ³)	9 mg/m ³
Northwest Territories	OEL TWA (ppm)	5 ppm
Ontario	OEL STEL (ppm)	10 ppm
Ontario	OEL TWA (ppm)	5 ppm
Prince Edward Island	OEL STEL (ppm)	10 ppm
Prince Edward Island	OEL TWA (ppm)	5 ppm
Québec	VECD (mg/m ³)	19 mg/m ³
Québec	VECD (ppm)	10 ppm
Québec	VEMP (mg/m ³)	9.4 mg/m ³
Québec	VEMP (ppm)	5 ppm
Saskatchewan	OEL STEL (ppm)	10 ppm
Saskatchewan	OEL TWA (ppm)	5 ppm
Yukon	OEL STEL (mg/m ³)	9 mg/m ³
Yukon	OEL STEL (ppm)	5 ppm
Yukon	OEL TWA (mg/m ³)	9 mg/m ³
Yukon	OEL TWA (ppm)	5 ppm

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Safety glasses. Face shield. Protective clothing.



Materials for Protective Clothing: Corrosion-proof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical safety goggles and face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, colorless
Odor	: Not available
Odor Threshold	: Not available
pH	: 1.5 - 2.0

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Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 1.01 - 1.03
Solubility	: Soluble in water
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

Reactivity: May be mildly corrosive to some materials.

Chemical Stability: The product is stable at normal handling and storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures.

Incompatible Materials: strong acids. Strong bases. Strong oxidizers. Amines. Non-coated; base metals.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes severe skin burns and eye damage

pH: 1.5 - 2.0

Serious Eye Damage/Irritation: Causes serious eye damage

pH: 1.5 - 2.0

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Contact may cause immediate severe irritation progressing quickly to chemical burns

Symptoms/Injuries After Skin Contact: Corrosive. Causes burns. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis

Symptoms/Injuries After Eye Contact: Causes serious eye damage. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract

Chronic Symptoms: None expected under normal conditions of use

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

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Formic acid (64-18-6)	
LD50 Oral Rat	730 mg/kg
LC50 Inhalation Rat	15 g/m ³ (Exposure time: 15 min)
ATE US (vapors)	7.85 mg/l/4h

SECTION 12: ECOLOGICAL INFORMATION

Toxicity No additional information available

Formic acid (64-18-6)	
EC50 Daphnia 1	120 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	138 - 165.6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Persistence and Degradability

Immunocal	
Persistence and Degradability	Not established.

Bioaccumulative Potential

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Bioaccumulative Potential	Not established.

Formic acid (64-18-6)	
BCF Fish 1	0.22
Log Pow	-0.54

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG

14.1. UN Number

UN-No.(DOT) : 3412
DOT NA no. : UN3412

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Formic acid Solution, with not less than 10% but not more than 85% acid by mass
Department of Transportation (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard Classes : 8 - Corrosive
Hazard Labels (DOT) : 8 - Corrosive



Packing Group (DOT) : II - Medium Danger

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DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
 T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)
 TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $95 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees Celsius. b. For liquids transported under ambient conditions may be calculated using the formula: $a = (d15 - d50) / 35d50$ Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional Information

Emergency Response Guide (ERG) Number : 153

Transport by Sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Air Transport

DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75) : 30 L

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Immunocal	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Formic acid (64-18-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %

US State Regulations

Formic acid (64-18-6)	
U.S. - Massachusetts - Right To Know List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
U.S. - Pennsylvania - RTK (Right to Know) List	

Canadian Regulations

Immunocal	
WHMIS Classification	Class E - Corrosive Material

