

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Identification

Product form : Mixture  
 Product name : IRMCO FLUIDS ® 090-00A  
 Product code : 090-00A

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : This product is a water-based metalworking lubricant containing additives for corrosion inhibition, metalworking performance, film strength, and fluid preservation. There is no petroleum oil content in this product.  
 Use of the substance/mixture : Industrial use

#### 1.3. Details of the supplier of the safety data sheet

IRMCO  
 2117 Greenleaf Street  
 Evanston, IL 60202 - USA  
 T 847-864-0255 - F 847-864-0012  
[SDS@irmco.com](mailto:SDS@irmco.com) - [www.IRMCO.com](http://www.IRMCO.com)

#### 1.4. Emergency telephone number

Emergency number : 847-864-0255  
 Monday-Friday 8:30 AM - 4:30 PM Central Standard Time (CST)

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Skin Irrit. 2	H315 -	Causes skin irritation
Eye Irrit. 2B	H320 -	Causes eye irritation
Skin Sens. 1	H317 -	May cause an allergic skin reaction

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H320 - Causes eye irritation

Precautionary statements (GHS-US) : P261 - Avoid breathing mist, spray  
 P264 - Wash hands thoroughly after handling  
 P272 - Contaminated work clothing must not be allowed out of the workplace  
 P280 - Wear eye protection, protective gloves  
 P302+P352 - If on skin: Wash with plenty of water  
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
 P337+P313 - If eye irritation persists: Get medical advice/attention  
 P362 - Take off contaminated clothing and wash it before reuse  
 P501 - Dispose of contents/container to an authorized waste collection point

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%
Triethanolamine (99.5%)	(CAS No) 102-71-6	>=25
Fatty Acid, Neutralized Soap*	(CAS No) Trade Secret	>=10
Polyalkylene Glycol*	(CAS No) Trade Secret	>=10
Phosphate Ester, Neutralized*	(CAS No) Trade Secret	>= 1

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

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).
First-aid measures after inhalation	: Allow victim to breathe fresh air. Allow the victim to rest. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation	: May cause respiratory irritation. May cause damaging effects to central nervous system, metabolism and gastrointestinal tract.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: Irritation of the gastric/intestinal mucosa. On ingestion, may affect the liver and kidneys.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Intense heat may cause container to burst.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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##### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. Avoid contact with skin and eyes. Prolonged or repeated contacts with the skin may cause dermatitis. Ensure adequate ventilation. Avoid breathing mist, spray.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not freeze. The liquid may freeze if stored outside. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.

Incompatible products : Strong bases. Strong acids. Oxidizing agent. Do not add nitrites or other nitrosating agents.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

IRMCO FLUIDS® 090-00A		
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (total particulate mass) General Recommended Exposure Limit for Metalworking Fluids (NIOSH, 1998).

Triethanolamine (99.5%) (102-71-6)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	Eye & skin irr

### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station to maintain airborne concentrations below exposure limits identified in Section 8.1. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses.



Hand protection : Wear chemically resistant gloves.

Eye protection : Chemical goggles or safety glasses. Contact lenses should not be worn.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Other information : Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Appearance : clear.  
Color : Colorless to Amber  
Odor : characteristic  
Odor threshold : No data available  
pH : ≈ 8.24

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Melting point	: No data available
Freezing point	: ≈ 32 °F
Boiling point	: ≈ 212 °F
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: ≈ 1.07
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: ≈ 8.92 lb/gal
Solubility	: Soluble in water. Water: 100 %
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: ≈ 103.18 cSt @ 40°C
Viscosity, dynamic	: No data available

### 9.2. Other information

VOC content : Not Applicable

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions. No polymerization.

### 10.3. Possibility of hazardous reactions

Do not add nitrites or other nitrosating agents. Addition of nitrites may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

### 10.4. Conditions to avoid

Extremely high or low temperatures.

### 10.5. Incompatible materials

Do not add nitrites or other nitrosating agents. Strong acids. Strong bases. Oxidizing agent.

### 10.6. Hazardous decomposition products

Under fire conditions, fumes may contain the original material in addition to unidentified toxic and/or irritating compounds. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure : Dermal; Inhalation

Acute toxicity : Not classified

Triethanolamine (99.5%) (102-71-6)	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 6400 mg/kg bodyweight; Rat)
LD50 dermal rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit)

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Skin corrosion/irritation	: Causes skin irritation. pH: ≈ 8.24
Serious eye damage/irritation	: Causes eye irritation. pH: ≈ 8.24
Respiratory or skin sensitization	: May cause an allergic skin reaction. (The product may be a skin sensitizer. It may also be a skin irritant and repeated contact may increase this effect.)
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Triethanolamine (99.5%) (102-71-6)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause respiratory irritation. May cause damaging effects to central nervous system, metabolism and gastrointestinal tract.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: Irritation of the gastric/intestinal mucosa. On ingestion, may affect the liver and kidneys.

## SECTION 12: Ecological information

### 12.1. Toxicity

Triethanolamine (99.5%) (102-71-6)	
LC50 fish 2	450 - 1000 mg/l (LC50; 96 h; Lepomis macrochirus)

### 12.2. Persistence and degradability

IRMCO FLUIDS® 090-00A	
Persistence and degradability	Not established.

Triethanolamine (99.5%) (102-71-6)	
Persistence and degradability	Readily biodegradable in water. Highly mobile in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.50 g O <sub>2</sub> /g substance
ThOD	2.04 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.02

### 12.3. Bioaccumulative potential

IRMCO FLUIDS® 090-00A	
Bioaccumulative potential	Not established.

Triethanolamine (99.5%) (102-71-6)	
BCF fish 1	< <0.4-<3.9,BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value
Log Pow	-2.3 - 1.34 (Weight of evidence approach; -1; QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

No additional information available

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### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not re-use empty containers without proper cleaning or reconditioning.

Additional information : Non hazardous waste per Resource Conservation and Recovery Act (RCRA).

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

### TDG

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### IRMCO FLUIDS® 090-00A

Not subject to reporting requirements of the United States SARA Section 313

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

### National regulations

#### IRMCO FLUIDS® 090-00A

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list

### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

#### Triethanolamine (99.5%) (102-71-6)

U.S. - New Jersey - Right to Know Hazardous Substance List

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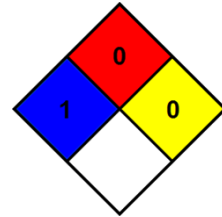
### SECTION 16: Other information

- Data sources : This material is classified as hazardous under OSHA regulations. This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- Other information : IRMCO products are mixtures protected as trade secrets according to 29 CFR 1910.1200(i). As per GHS regulation, ingredients that contribute to the classification and exceed cut-off values are listed in section 3. For more information contact IRMCO.

Full text of H-phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation

- NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
- NFPA fire hazard : 0 - Materials that will not burn.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

- Health : 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability : 0 Minimal Hazard - Materials that will not burn
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal Protection : B  
B - Safety glasses, Gloves

IRMCO SDS US

*We believe all the information contained in this document to be reliable, though the accuracy or completeness is not guaranteed. IRMCO FLUIDS®, IRMCO GEL® and IRMCO EXTREME® products have been used extensively throughout the world in a variety of manufacturing and production applications. It is the responsibility of users of IRMCO products to meet the component surface quality, process compatibility or cleanliness requirements of their customers. Given the complexity and variety of users applications and processes, IRMCO cannot predict all user conditions and results. If surface quality, process compatibility or cleanliness is a user concern, then IRMCO recommends removing/cleaning off the IRMCO product film from the components before final assembly and distribution of such components. User assumes all risk and liabilities associated with the products used.*