

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations SDS Reference Number: 978
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SECTION 1 Identification

1.1. Product identifier

Product form : Mixture

Product name : IRMCO FLUIDS ® 146-00N

Product code : 146-00N

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Industrial use

1.4. Supplier's details

FUCHS LUBRICANTS CO. 17050 Lathrop Avenue Harvey, IL 60426 USA

T 708-333-8900 - F 708-333-9180 sds@fuchs.com - www.fuchs.com/us

Contact: EHS Department

1.5. Emergency phone number

Emergency number : 708-333-8900 (Bus. hrs) | 800-255-3924 (24 hrs)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2 H315 Causes skin irritation. Serious eye damage/eye irritation, Category 2B H320 Causes eye irritation.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H315 - Causes skin irritation

H320 - Causes eye irritation

Precautionary statements (GHS US) : P264 - Wash hands thoroughly after handling.

P280 - Wear 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. P332+P313 - If skin irritation occurs: Get medical advice.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P337+P313 - If eye irritation persists: Get medical advice.

P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Triethanolamine	CAS-No.: 102-71-6	5-10
Fatty Acid, Neutralized Salt*	CAS-No.: Trade Secret	≥5
Phosphate Ester, Neutralized*	CAS-No.: Trade Secret	≥5

^{*}Chemical name. CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary 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 affected person 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 persists.

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/effects, acute and delayed

Potential Adverse human health effects and

symptoms

Symptoms/effects

Symptoms/effects after inhalation

Symptoms/effects after skin contact Symptoms/effects after eye contact

Symptoms/effects after ingestion

: Based on available data, the classification criteria are not met.

: Not expected to present a significant hazard under anticipated conditions of normal use.

: May cause respiratory irritation. May cause damaging effects to central nervous system, metabolism and gastrointestinal tract.

: May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Causes eye irritation.

: Irritation of the gastric/intestinal mucosa. On ingestion, may affect the liver and kidneys.

4/1/2025 (Revision date) EN (English US) 2/11

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4.3. Indication of immediate medical attention and special treatment needed, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) 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. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

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

For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

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

waters.

6.2. Methods and materials 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.

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 contact 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.

4/1/2025 (Revision date) EN (English US) 3/11

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

7.2. Conditions for safe storage, including 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 ® 146-00N		
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA 0.5 mg/m³ (total particulate mass) General Recommended Exposure Limit for Metalwork Fluids (NIOSH, 1998).		
Triethanolamine (102-71-6)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Triethanolamine	
ACGIH OEL TWA	5 mg/m³	
Remark (ACGIH)	Eye & skin irr	
Regulatory reference ACGIH 2024		

8.2. Appropriate engineering 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.

8.3. Individual protection measures, such as personal protective equipment

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.

Personal protective equipment symbol(s):







Other information:

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

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid Appearance : clear.

Color : Colorless to Amber
Odor : characteristic
Odor threshold : No data available
pH : ≈ 8.23

Melting point : No data available

Freezing point : ≈ 32 °F Boiling point : ≈ 212 °F : ≈ 212 °F

Flash point : No data available
Flammability (solid, gas) : Non flammable.
Vapor pressure : No data available
Relative vapor density at 20°C : No data available

Relative density : ≈ 1.03 Density : ≈ 8.62 lb/gal Solubility : Soluble in water. Water: 100 %

Partition coefficient n-octanol/water (Log Pow) : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : ≈ 111 mm²/s
Explosion limits : No data available
Particle characteristics : No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

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

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

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.

4/1/2025 (Revision date) EN (English US) 5/11

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 11 Toxicological information	on
Likely routes of exposure	: Dermal. Inhalation.
11.1. Information on toxicological effects	
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	: Not classified: Not classified: Not classified
Triethanolamine (102-71-6)	
LD50 oral rat	6400 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimenta value, Oral, 7 day(s))
LD50 dermal rabbit	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Experimental value, Dermal, 14 day(s))
ATE US (oral)	6400 mg/kg body weight
Phosphate Ester, Neutralized	
LD50 oral rat	> 2000 mg/kg
Skin corrosion/irritation	: Causes skin irritation. pH: ≈ 8.23
Triethanolamine (102-71-6)	p. 1. 0.20
pH	11 (25 %)
Fatty Acid, Neutralized Salt	
pH	9.2
Phosphate Ester, Neutralized	
рН	< 1.5
Serious eye damage/irritation	: Causes eye irritation. pH: ≈ 8.23
Triethanolamine (102-71-6)	
рН	11 (25 %)
Fatty Acid, Neutralized Salt	
рН	9.2
Phosphate Ester, Neutralized	
рН	< 1.5
Respiratory or skin sensitization	: Not classified (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 (102-71-6)	
NOAEL (chronic,oral,animal/male,2 years)	63 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies)
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified

4/1/2025 (Revision date) EN (English US) 6/11

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Triethanolamine (102-71-6)		
NOAEL (animal/male, F0/P)	1000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 416 (Two Generation Reproduction Toxicity Study), Guideline: other:, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)	
NOAEL (animal/female, F0/P)	300 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study), Guideline: other:, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)	
STOT-single exposure	: Not classified	
STOT-repeated exposure	: Not classified	
Triethanolamine (102-71-6)		
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Aspiration hazard	: Not classified	
IRMCO FLUIDS ® 146-00N		
Viscosity, kinematic	≈ 111 mm²/s	
Triethanolamine (102-71-6)		
Viscosity, kinematic	830.2 mm²/s (20 °C, Equivalent or similar to OECD 114)	
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.	
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.	
Symptoms/effects after inhalation	: May cause respiratory irritation. May cause damaging effects to central nervous system, metabolism and gastrointestinal tract.	
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.	
Symptoms/effects after eye contact	: Causes eye irritation.	
Symptoms/effects after ingestion	: Irritation of the gastric/intestinal mucosa. On ingestion, may affect the liver and kidneys.	

SECTION 12 Ecological information

12.1. Ecotoxicity

: Not classified Hazardous to the aquatic environment, short-term

Hazardous to the aquatic environment, long-term

: Not classified

(chronic)

Triethanolamine (102-71-6)		
LC50 - Fish [1]	11800 mg/l (APHA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Nominal concentration)	
EC50 - Crustacea [1]	609.88 mg/l (ASTM E1192, 48 h, Ceriodaphnia dubia, Static system, Fresh water, Experimental value, Lethal)	
EC50 72h - Algae [1]	512 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
EC50 72h - Algae [2]	216 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
ErC50 algae	216 mg/l (DIN 38412-9, 72 h, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)	
NOEC chronic fish	> 1 mg/l Test organisms (species): other:	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Phosphate Ester, Neutralized	
LC50 - Fish [1]	> 100 mg/l

12.2. Persistence and degradability

IRMCO FLUIDS ® 146-00N		
Persistence and degradability Not established.		
Triethanolamine (102-71-6)		
Persistence and degradability Biodegradable in the soil, No inhibition of nitrification, Readily biodegradable in water.		
Biochemical oxygen demand (BOD)	gen demand (BOD) 0.02 g O ₂ /g substance	
Chemical oxygen demand (COD)	1.5 g O ₂ /g substance	
ThOD 2.04 g O ₂ /g substance		
Fatty Acid, Neutralized Salt		
Persistence and degradability Rapidly degradable		
Phosphate Ester, Neutralized		
Persistence and degradability Rapidly degradable		

12.3. Bioaccumulative potential

IRMCO FLUIDS ® 146-00N		
Bioaccumulative potential	Not established.	
Triethanolamine (102-71-6)		
BCF - Fish [1]	0.4-3.9 l/kg (Equivalent or similar to OECD 305, 6 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value)	
Partition coefficient n-octanol/water (Log Pow)	-1.9 (Weight of evidence approach, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 $^{\circ}\text{C})$	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Phosphate Ester, Neutralized		
Partition coefficient n-octanol/water (Log Pow)	6.05 Source: Quantitative Structure Activity Relation	

12.4. Mobility in soil

Triethanolamine (102-71-6)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.06 – 1.27 (log Koc, SRC PCKOCWIN v1.66, Calculated value)	
Ecology - soil	Highly mobile in soil.	

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

Other information : Avoid release to the environment.

4/1/2025 (Revision date) EN (English US) 8/11

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13 Disposal considerations

Product/Packaging 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).

Ecological waste information : Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT): Not applicablePacking group (TDG): Not applicablePacking group (IMDG): Not applicablePacking group (IATA): Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

4/1/2025 (Revision date) EN (English US) 9/11

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

IATA

No data available

SECTION 15 Regulatory information

15.1. Federal regulations

IRMCO FLUIDS ® 146-00N

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

SARA Section 311/312 Hazard Classes

Delayed (chronic) health hazard Immediate (acute) health hazard

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Fatty Acid, Neutralized Salt

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard

15.2. International regulations

CANADA

Triethanolamine (102-71-6)

Listed on the Canadian DSL (Domestic Substances List)

Fatty Acid, Neutralized Salt

Listed on the Canadian DSL (Domestic Substances List)

Phosphate Ester, Neutralized

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Fatty Acid, Neutralized Salt

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

IRMCO FLUIDS ® 146-00N

All components of this product are present and listed as Active 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

Triethanolamine (102-71-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Fatty Acid, Neutralized Salt

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.3. State regulations

Component	State or local regulations
Triethanolamine(102-71-6)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

: 4/1/2025 Revision date : 6/1/2015 Issue date

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 This information is provided without warranty. The information is believed to be correct. This

information should be used to make an independent determination of the methods to safeguard

workers and the environment.

Full text of hazard classes and H-statements	
H315	Causes skin irritation
H320	Causes eye irritation

NFPA health hazard	1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and

sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire

conditions.



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 - Safety glasses, Gloves

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

