

Safety Data Sheet 9132

Issue date: 07/30/2024 Version: 1.0

### **SECTION 1: Identification**

#### 1.1. Identification

 Product name
 : BIMAX® IPL

 Product code
 : 9132

 Product form
 : Substance

 Physical state
 : Liquid

 Formula
 : C6H12O3

Synonyms : (-)-ISOPROPYL L-LACTATE

Chemical name : PROPAN-2-YL (2S)-2-HYDROXYPROPANOATE

#### 1.2. Recommended use and restrictions on use

Recommended use : Laboratory chemicals

Manufacture of substances

### 1.3. Supplier

#### GELEST, INC.

158 Industrial Road Glen Rock, PA 17327

**USA** 

T 717-227-1774 - F 717-227-1775 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com

### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

### SECTION 2: Hazard(s) identification

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

### **GHS US classification**

Flammable liquids Category 3 H226 Flammable liquid and vapor Skin corrosion/irritation Category 2 H315 Causes skin irritation Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation

Reproductive toxicity Category 2 H361 Suspected of damaging fertility or the unborn child

Full text of H statements : see section 16

# 2.2. GHS Label elements, including precautionary statements

### **GHS US labeling**

Hazard pictograms (GHS US)







Signal word (GHS US) : Warning

Hazard statements (GHS US) : H226 - Flammable liquid and vapor

H315 - Causes skin irritation H319 - Causes serious eye irritation

H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective clothing, eye protection, face protection, protective gloves.

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 1/12

# Safety Data Sheet

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/Bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P264 - Wash hands thoroughly after handling.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P302+P352 - If on skin: Wash with plenty of water.

P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower

P332+P313 - If skin irritation occurs: Get medical advice/attention.

 ${\tt P305+P351+P338-IF\ IN\ EYES:\ Rinse\ cautiously\ with\ water\ for\ several\ minutes.\ Remove}$ 

contact lenses, if present and easy to do. Continue rinsing

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

P321 - Specific treatment (see supplemental first aid instruction on this label).

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

P370+P378 - In case of fire: Use Water spray, carbon dioxide (CO2), dry chemical powder, foam to extinguish.

P403+P235 - Keep in a cool place

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Hazards not otherwise classified (HNOC)

No additional information available

# 2.4. Unknown acute toxicity (GHS US)

Not applicable

# **SECTION 3: Composition/Information on ingredients**

### 3.1. Substances

 Name
 : BIMAX® IPL

 CAS-No.
 : 63697-00-7

Name	Product identifier	%	GHS US classification
Isopropyl L-lactate	CAS-No.: 63697-00-7	≥ 97	Flam. Liq. 3, H226
L-(+)-lactic acid	CAS-No.: 79-33-4	≤ 2	Skin Corr. 1C, H314 Eye Dam. 1, H318
Toluene	CAS-No.: 108-88-3	≤ 0.2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412

Comments : % by GC Full text of hazard classes and H-statements : see section 16

#### 3.2. Mixtures

Not applicable

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 2/12

# Safety Data Sheet

### **SECTION 4: First-aid measures**

### 4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical

advice.

First-aid measures after skin contact : Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with

plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get

medical advice/attention.

First-aid measures after eye contact : 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.

First-aid measures after ingestion : Do not induce vomiting. Rinse mouth out with water. Get medical advice/attention.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.

# 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media : Avoid the use of streaming water, as this may spread the fire.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

Reactivity : No dangerous reactions known under normal conditions of use.

### 5.3. Special protective equipment and precautions for fire-fighters

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

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

### **SECTION 6: Accidental release measures**

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

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

# 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or

streams.

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 3/12

# Safety Data Sheet

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13. See Heading 8.

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Keep away from heat,

hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ensure good ventilation of the work station. Wear personal

protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Wash contaminated clothing before reuse.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond

container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions : Store locked up. Keep container tightly closed in a dry and well-ventilated place away from heat

sources.

Incompatible materials : Heat sources. Oxidizers. Bases.

Storage temperature : < 32 °C (Recommended)

Packaging materials : Store always product in container of same material as original container.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

Toluene (108-88-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Toluene
ACGIH OEL TWA	20 ppm
Remark (ACGIH)	TLV® Basis: CNS, visual & hearing impair; female repro system eff; pregnancy loss. Notations: OTO; A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	TOLUENE
BEI (BLV)	0.3 mg/g Kreatinin Parameter: o-Cresol (with hydrolysis) - Medium: urine - Sampling time: End of shift - Notations: B 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: End of shift 0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: Prior to last shift of workweek
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Toluene
OSHA PEL TWA	200 ppm
OSHA PEL (Ceiling)	300 ppm

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 4/12

# Safety Data Sheet

Toluene (108-88-3)	
Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	500 ppm 10 mins.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-2

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## **SECTION 9: Physical and chemical properties**

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

Physical state : Liquid
Appearance : Clear, colorless Liquid.
Molecular mass : 132.16 g/mol
Color : Colorless.
Odor : Mildly. Characteristic.
Odor threshold : No data available
PH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : Not applicable

Freezing point : No data available

Boiling point : 166 – 168 °C

Flash point : 57 °C

Auto-ignition temperature : No data available

Decomposition temperature : No data available Flammability (solid, gas) : Flammable liquid and vapor.

Vapor pressure

Relative vapor density at 20°C

Relative density

Composity

Partition coefficient n-octanol/water (Log Pow) : No data available Partition coefficient n-octanol/water (Log Kow) : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available Explosive properties : No data available Oxidizing properties : No data available Explosion limits : No data available

### 9.2. Other information

No additional information available

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 5/12

# Safety Data Sheet

# **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

# 10.2. Chemical stability

Flammable liquid and vapor.

# 10.3. Possibility of hazardous reactions

Vapors may form flammable mixture with air.

### 10.4. Conditions to avoid

Heat. flames. Sparks. Direct sunlight.

### 10.5. Incompatible materials

Oxidizers. Bases.

# 10.6. Hazardous decomposition products

May release flammable gases. In the event of fire: see section 5.

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Acute toxicity (innatation)	. Not classified
Toluene (108-88-3)	
LD50 oral rat	5580 mg/kg body weight Animal: rat, Animal sex: male, Guideline: EU Method B.1 (Acute Toxicity (Oral)), 95% CL: 5300 - 5910
LD50 dermal rabbit	> 5000 mg/kg body weight Animal: rabbit, Animal sex: male, 95% CL: 9,63 - 20,77
L-(+)-lactic acid (79-33-4)	
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: EPA OPP 81-2 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 7.94 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Toluene (108-88-3)	

Toluene (108-88-3)	
IARC group	3 - Not classifiable
Reproductive toxicity :	Suspected of damaging fertility or the unborn child.
STOT-single exposure :	Not classified
STOT-repeated exposure :	Not classified
Toluene (108-88-3)	
LOAEL (oral,rat,90 days)	1250 mg/kg body weight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 6/12

# Safety Data Sheet

Toluene (108-88-3)	
NOAEL (oral,rat,90 days)	625 mg/kg body weight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation,rat,vapor,90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
Aspiration hazard	: Not classified
Symptoms/effects after skin contact Symptoms/effects after eye contact	: Irritation. : Eye irritation.

# **SECTION 12: Ecological information**

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Toluene (108-88-3)	
LC50 - Fish [1]	5.5 mg/l Test organisms (species): Oncorhynchus kisutch
EC50 - Crustacea [1]	3.78 mg/l Source: ECHA
LOEC (chronic)	2.76 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.74 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC chronic fish	1.39 mg/l Test organisms (species): Oncorhynchus kisutch Duration: '40 d'
L-(+)-lactic acid (79-33-4)	
LC50 - Fish [1]	195 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	130 mg/l Test organisms (species): Daphnia magna

### 12.2. Persistence and degradability

No additional information available

## 12.3. Bioaccumulative potential

Toluene (108-88-3)	
Partition coefficient n-octanol/water (Log Pow)	2.73 Source: HSDB

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

# **SECTION 13: Disposal considerations**

### 13.1. Disposal methods

Regional waste regulation : Disposal must be done according to official regulations.

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable. Do not re-use empty

containers.

Ecological information : Avoid release to the environment.

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 7/12

# Safety Data Sheet

# **SECTION 14: Transport information**

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
3272	UN3272	3272	3272
14.2. Proper Shipping Name			
Esters, n.o.s. (Isopropyl L-lactate)	ESTERS, N.O.S. (ISOPROPYL L- LACTATE)	ESTERS, N.O.S. (ISOPROPYL L- LACTATE)	Esters, n.o.s. (Isopropyl L-lactate)
Transport document description			
UN3272 Esters, n.o.s. (Isopropyl L- lactate), 3, III	UN3272 ESTERS, N.O.S. (ISOPROPYL L-LACTATE), 3, III	UN 3272 ESTERS, N.O.S. (ISOPROPYL L-LACTATE), 3, III	UN 3272 Esters, n.o.s. (Isopropyl L- lactate), 3, III
14.3. Transport hazard class(es	)		
3	3	3	3
FLAMMABLE LIQUID	Not applicable	3	3
14.4. Packing group			
III	III		III
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information availab	le		

## 14.6. Special precautions for user

#### DOT

UN-No.(DOT)

DOT Special Provisions (49 CFR 172.102)

: UN3272

B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). 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, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx)
DOT Packaging Non Bulk (49 CFR 173.xxx)

: 150 : 203

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 8/12

# Safety Data Sheet

DOT Packaging Bulk (49 CFR 173.xxx) : 242 DOT Quantity Limitations Passenger aircraft/rail (49 : 60 L

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L

CFR 175.75)

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

passenger vessel.

**TDG** 

UN-No. (TDG) : UN3272

TDG Special Provisions : 16 - 1) The technical name of the most dangerous substance related to the primary class must

be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks.

2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the

"Food and Drugs Act".

: 5 L : E1

: 60 L

Explosive Limit and Limited Quantity Index

Excepted quantities (TDG)
Passenger Carrying Road Vehicle or Passenger

Carrying Railway Vehicle Index

Emergency Response Guide (ERG) Number : 127

**IMDG** 

Special provision (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP1, TP29

EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS

EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS

Stowage category (IMDG) : A

**IATA** 

· F1 PCA Excepted quantities (IATA) PCA Limited quantities (IATA) Y344 PCA limited quantity max net quantity (IATA) 10L PCA packing instructions (IATA) 355 PCA max net quantity (IATA) 60L CAO packing instructions (IATA) 366 CAO max net quantity (IATA) 220L Special provision (IATA) : A3 ERG code (IATA) 3L

# 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 9/12



# Safety Data Sheet

# **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

### **BIMAX® IPL (63697-00-7)**

EPA TSCA Regulatory Flag PMN - PMN - indicates a commenced PMN substance.

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

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Toluene CAS-No. 108-88-3 ≤ 0.2%

### Toluene (108-88-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 1000 lb

### 15.2. International regulations

### CANADA

### Toluene (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

### L-(+)-lactic acid (79-33-4)

Listed on the Canadian DSL (Domestic Substances List)

### Isopropyl L-lactate (63697-00-7)

Listed on the Canadian NDSL (Non-Domestic Substances List)

### **EU-Regulations**

No additional information available

## **National regulations**

# Toluene (108-88-3)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

# L-(+)-lactic acid (79-33-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

## 15.3. US State regulations



This product can expose you to Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Print date: 07/31/2024 EN (English US) SDS ID: **9132** 10/12

# Safety Data Sheet

Toluene (108-88-3)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		7000 µg/day

### Toluene (108-88-3)

- 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**

#### Full text of H-phrases::

H225 Highly flammable liquid and vapor H226 Flammable liquid and vapor H304 May be fatal if swallowed and enters airways H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage
H304 May be fatal if swallowed and enters airways H314 Causes severe skin burns and eye damage H315 Causes skin irritation
H314 Causes severe skin burns and eye damage H315 Causes skin irritation
H315 Causes skin irritation
H318 Causes serious eye damage
H319 Causes serious eye irritation
H336 May cause drowsiness or dizziness
H361 Suspected of damaging fertility or the unborn child
H373 May cause damage to organs through prolonged or repeated exposure
H412 Harmful to aquatic life with long lasting effects

Abbreviations and acronyms

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemcial Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

NFPA health hazard

: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

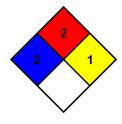
NFPA fire hazard

2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity

: 1 - Materials that in themselves are normally stable but can become

unstable at elevated temperatures and pressures.



Prepared by safety and environmental affairs.

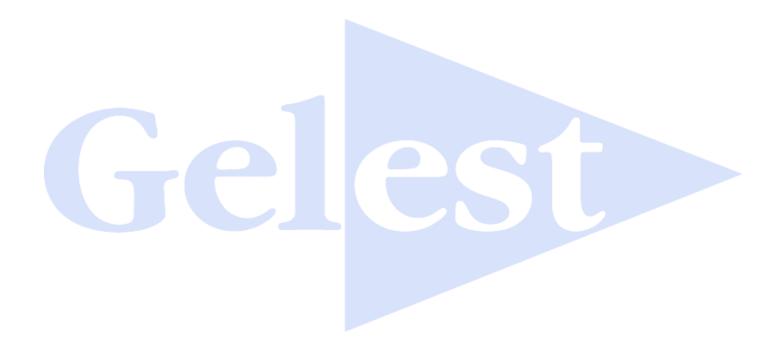
Issue date: 07/30/2024 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

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

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

Print date: 07/31/2024 EN (English US) SDS ID: 9132 11/12 © 2023 Gelest Inc. Glen Rock, PA 17327



Print date: 07/31/2024 EN (English US) SDS ID: **9132** 12/12