

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 11/11/2019 Revision date: 10/11/2024 Supersedes: 2/15/2024 Version: 1.3

SECTION 1: Identification

1.1. Identification

Product form

: Mixture

Product name

: ZIP STRIP 125 AEROSOL

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Zip-Chem Products 400 Jarvis Drive Morgan Hill, CA, Santa Clara, 95037 United States T 408-782-2335 - F 408-782-6304

zipchem@addevmaterials.com - www.zipchem.com

1.4. Emergency telephone number

Emergency number

: 1-800-424-9300

Country/Area	Organization/Company	Address	Emergency number	Comment
US	Chemtrec		1-800-424-9300	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

H223	Flammable aerosol	On basis of test data
H315	Causes skin irritation	Calculation method
H319	Causes serious eye irritation	Calculation method
H317	May cause an allergic skin reaction	Calculation method
H351	Suspected of causing cancer	Calculation method
H360	May damage fertility or the unborn child	Calculation method
Н373	May cause damage to organs through prolonged or repeated exposure	Calculation method
H400	Very toxic to aquatic life	Calculation method
	H315 H319 H317 H351 H360	aerosol H315 Causes skin irritation H319 Causes serious eye irritation H317 May cause an allergic skin reaction H351 Suspected of causing cancer H360 May damage fertility or the unborn child H373 May cause damage to organs through prolonged or repeated exposure H400 Very toxic to

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Hazardous to the aquatic environment - Chronic Hazard Category 1

H410

Very toxic to aquatic life with long lasting effects Calculation method

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)

Hazard statements (GHS US)

: Danger

: H223 - Flammable aerosol

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation H351 - Suspected of causing cancer

H360 - May damage fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

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

P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 - Do not spray on an open flame or other ignition source.

P251 - Pressurized container: Do not pierce or burn, even after use.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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.

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

P314 - Get medical advice/attention if you feel unwell.

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

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

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

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

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

P363 - Wash contaminated clothing before reuse.

P391 - Collect spillage.

P405 - Store locked up.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
D-LIMONENE	CAS-No.: 5989-27-5	30-50	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
COCONUT DIETHANOLAMIDE	CAS-No.: 68603-42-9	1-5	Eye Irrit. 2A, H319 Repr. 1A, H360
2,2'-IMINODIETHANOL	CAS-No.: 111-42-2	1-3	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351 STOT RE 2, H373

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

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

irritation or rash 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 : Call a poison center/doctor/physician if you feel unwell.

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

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

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. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapor.

Explosion hazard : Pressurized container: may burst if heated.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

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

Emergency procedures

: Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. 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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment

: Collect spillage.

Methods for cleaning up

: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eves.

Hygiene measures

: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Ground/bond container and receiving equipment.

Storage conditions

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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2,2'-IMINODIETHANOL (111-42-2	
USA - ACGIH - Occupational Expos	ure Limits
Local name	Diethanolamine
ACGIH OEL TWA	1 mg/m³ (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: Liver & kidney dam. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2024

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:

Gloves.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):







SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Mixture contains one or more component(s) which have the following colour(s):

Colorless Pale yellow Colourless to white Yellow to light brown Colourless

Odor : There may be no odour warning properties, odour is subjective and inadequate to warn of

overexposure.

Mixture contains one or more component(s) which have the following odour:

Mild odour Unpleasant odour Irritating/pungent odour Ammonia odour Characteristic odour

Odor threshold : No data available

pH : 8-10

Melting point : Not applicable
Freezing point : No data available

Boiling point : 176 °C Flash point : 50 °C

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Relative evaporation rate (butyl acetate=1) : Slow

Flammability (solid, gas) : Flammable aerosol. : No data available Vapor pressure Relative vapor density at 20°C : No data available Relative density : No data available Density : 0.74 g/ml Solubility : Soluble in water. Partition coefficient n-octanol/water (Log Pow) : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity, kinematic : No data available Viscosity, dynamic : 100 - 200 cP

Explosive properties : Pressurized container: may burst if heated.

: No data available

Oxidizing properties : Not oxidising.

9.2. Other information

Explosion limits

VOC content : 571 g/l (VOC Less Water and Exempt Solvents)

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

D-LIMONENE (5989-27-5)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Read-across, Dermal, 7 day(s))

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2,2'-IMINODIETHANOL (111-42-2)	
LD50 oral rat	> 710 mg/kg (Rat, Oral)
ATE US (oral)	500 mg/kg body weight
COCONUT DIETHANOLAMIDE (68603	-42-9)
LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg
Skin corrosion/irritation	: Causes skin irritation. pH: 8 – 10
2,2'-IMINODIETHANOL (111-42-2)	
рН	11 (10 %)
COCONUT DIETHANOLAMIDE (68603	-42-9)
рН	9 – 11 (10 %)
Serious eye damage/irritation	: Causes serious eye irritation. pH: 8 – 10
2,2'-IMINODIETHANOL (111-42-2)	
рН	11 (10 %)
COCONUT DIETHANOLAMIDE (68603	-42-9)
рН	9 – 11 (10 %)
Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity	May cause an allergic skin reaction. Not classified Suspected of causing cancer.
D-LIMONENE (5989-27-5)	
IARC group	3 - Not classifiable
2,2'-IMINODIETHANOL (111-42-2)	
IARC group	2B - Possibly carcinogenic to humans
COCONUT DIETHANOLAMIDE (68603	-42-9)
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity STOT-single exposure STOT-repeated exposure	 : May damage fertility or the unborn child. : Not classified : May cause damage to organs through prolonged or repeated exposure.
2,2'-IMINODIETHANOL (111-42-2)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard Viscosity, kinematic	: Not classified : No data available
2,2'-IMINODIETHANOL (111-42-2)	
Viscosity, kinematic	359.945 mm²/s
Symptoms/effects after skin contact Symptoms/effects after eye contact	: Irritation. May cause an allergic skin reaction. : Eye irritation.

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12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
D-LIMONENE (5989-27-5)	
LC50 - Fish [1]	720 µg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Measured concentration)
EC50 - Crustacea [1]	0.31 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi static system, Fresh water, Experimental value, Measured concentration)
ErC50 algae	0.32 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Measured concentration)
2,2'-IMINODIETHANOL (111-42-2)	
LC50 - Fish [1]	1664 mg/l (96 h, Pimephales promelas, Pure substance)
EC50 - Crustacea [1]	55 mg/l (48 h, Daphnia magna, Pure substance)
ErC50 algae	9.5 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
COCONUT DIETHANOLAMIDE (68603-42-9	
LC50 - Fish [1]	4 mg/l (96 h, Brachydanio rerio, Semi-static system)
EC50 - Crustacea [1]	2.39 mg/l (48 h, Daphnia pulex)
EC50 96h - Algae [1]	2.2 mg/l (OECD 201: Alga, Growth Inhibition Test, Scenedesmus subspicatus)
12.2. Persistence and degradability	
ZIP STRIP 125 AEROSOL	
Persistence and degradability	Not rapidly degradable
D-LIMONENE (5989-27-5)	
Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O ₂ /g substance
2,2'-IMINODIETHANOL (111-42-2)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.22 g O ₂ /g substance
Chemical oxygen demand (COD)	1.52 g O₂/g substance
ThOD	2.13 g O₂/g substance
COCONUT DIETHANOLAMIDE (68603-42-9	
Persistence and degradability	Readily biodegradable in water.
12.3. Bioaccumulative potential	
D-LIMONENE (5989-27-5)	
BCF - Fish [1]	865 l/kg (BCFBAF v3.01, Pisces, QSAR, Fresh weight)

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D-LIMONENE (5989-27-5)			
Bioaccumulative potential	Potential Potential for bioaccumulation (4 ≤ Log Kow ≤ 5).		
2,2'-IMINODIETHANOL (111-42-2)			
BCF - Fish [1]	3.162 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	-2.181.43		
Bioaccumulative potential	Not bioaccumulative.		
COCONUT DIETHANOLAMIDE (68603-42-9			
Partition coefficient n-octanol/water (Log Pow)	3.52 (Calculated)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		

12.4. Mobility in soil

D-LIMONENE (5989-27-5)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3 – 3.8 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.
2,2'-IMINODIETHANOL (111-42-2)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.98 – 1 (log Koc, Calculated value)
Ecology - soil	No (test)data on mobility of the component(s) available.

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number		
1950	1950	1950
14.2. Proper Shipping Name		
Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
Transport document description		
1950 Aerosols, flammable, 2.1	UN 1950 Aerosols, flammable, 2.1	UN 1950 Aerosols, flammable, 2.1

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IMDG	IATA
2.1	2.1
2	2 2
Not applicable	Not applicable
Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
	Not applicable Dangerous for the environment: Yes

14.6. Special precautions for user

DOT

UN-No.(DOT) : 1950

DOT Special Provisions (49 CFR 172.102) : N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.

DOT Packaging Exceptions (49 CFR 173.xxx) : 306 DOT Quantity Limitations Passenger aircraft/rail (49 : 75 kg

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 150 kg

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.

DOT Vessel Stowage Other : 25 - Protected from sources of heat,87 - Stow "separated from" Class 1 (explosives) except

Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials

IMDG

Special provision (IMDG) : 63, 190, 277, 327, 344, 381, 959

Limited quantities (IMDG) : SP277

Excepted quantities (IMDG) : E0

Packing instructions (IMDG) : P207, LP200
Packing provisions (IMDG) : PP87, L2

EmS-No. (Fire) : F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES

EmS-No. (Spillage) : S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)

Stowage category (IMDG) : None
Stowage and handling (IMDG) : SW1, SW22
Segregation (IMDG) : SG69

IATA

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO packing instructions (IATA) : 203
CAO max net quantity (IATA) : 150kg

Special provision (IATA) : A145, A167, A802

ERG code (IATA) : 10L

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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.

1-3%

2,2'-IMINODIETHANOL CAS-No. 111-42-2

2,2'-IMINODIETHANOL (111-42-2)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 100 lb

15.2. International regulations

CANADA

D-LIMONENE (5989-27-5)

Listed on the Canadian DSL (Domestic Substances List)

2,2'-IMINODIETHANOL (111-42-2)

Listed on the Canadian DSL (Domestic Substances List)

COCONUT DIETHANOLAMIDE (68603-42-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

ZIP STRIP 125 AEROSOL

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

D-LIMONENE (5989-27-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

2,2'-IMINODIETHANOL (111-42-2)

Listed on IARC (International Agency for Research on Cancer)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

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COCONUT DIETHANOLAMIDE (68603-42-9)

Listed on IARC (International Agency for Research on Cancer)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

M WARNING:

This product can expose you to Diethanolamine, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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Full text of I	I-phrases
H223	Flammable aerosol
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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.