

Safety Data Sheet according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Date of issue: 22/09/2014

Revision date:

Version: 1.0

ULM-8322-S

Product name. Mixture DESETTYLHAWINE SESETTYLHAWINE ULM-4322-S Product code ULM-4322-S Status category Professional uses advised against For professional use only. 12.1. Relevant identified uses For professional use only. For professional use only. 12.2. Uses advised against For professional use only. 12.3. Details of the supplier of the safety data swerthy advised use only. Status category with iter and use in the safety data swerthy advised use only. 12.3. Details of the supplier of the safety data swerthy advised use only. Status category with iter and use in the safety data swerthy advised use only. Status category in www.isotop.com 12.4. Details of the supplier of the safety data swerthy advised use only. Status category in www.isotop.com 12.5. Emergency tumbers: Status category in www.isotop.com 12.6. Emergency teleptone number	1.1. Product identifier	
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Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 Cilicalase @isotope.com Emergency telephone number Emergency numbers: Chemtres: 1-800-424-9300 (24 hours) International: 1-202-483-7616 (24 hours) SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Flam. Liq. 2 H225 Acute Tox. 4 (Oral) H302 Acute Tox. 4 (Oral) H302 Acute Tox. 4 (Denaul) H312 Acute Tox. 4 (Inhalation) H332 Skin Irrit. 2 H315 Eye Dam. 1 H318 Resp. Sens. 1 H314 Kin Sens. 1 H317 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC F: R11 Xi, R21 R42 Xi, R41 R43	1.3. Details of the supplier of the	safety data sheet
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GHS-US classification

Flam. Liq. 2 Acute Tox. 4 (Oral)	H225 H302
Acute Tox. 4 (Dermal)	H312
Acute Tox. 4 (Inhalation)	H332
Skin Irrit. 2	H315
Eye Dam. 1	H318
Resp. Sens. 1	H334
Skin Sens. 1	H317
Aquatic Acute 3	H402

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No	o. 1272/2008	[CLP]
Hazard pictograms (CLP)	:	\wedge

	GHS02	GHS05	GHS07	GHS08	
Signal word (CLP)	: Danger				
Hazardous ingredients	: DIETHYLAMINE	UNLABELED			
Hazard statements (CLP)	H315 - Causes s H317 - May caus H318 - Causes s	32 - Harmful if s kin irritation se an allergic sk serious eye darr	swallowed, in cor kin reaction nage	tact with skin or if inhaled r breathing difficulties if inhaled	
Precautionary statements (CLP)	smoking P233 - Keep con P240 - Ground/b	tainer tightly clo ond container a osion-proof elec athing fume, m th hands thorou	osed and receiving equ strical, lighting, ve ist, spray, vapou ighly after handli	ntilating equipment s ng	n sources. No

P271 - Use only outdoors or in a well-ventilated area

GHS-US labelling

Hazard pictograms (GHS-US)	HS02 GHS05 GHS07 GHS08
Signal word (GHS-US)	: Danger
Hazard statements (GHS-US)	 H225 - Highly flammable liquid and vapour H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled H315 - Causes skin irritation H317 - May cause an allergic skin reaction H318 - Causes serious eye damage H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H402 - Harmful to aquatic life
Precautionary statements (GHS-US)	 P210 - Keep away from heat, hot surfaces, open flames, sparks No smoking P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P242 - Use only non-sparking tools P243 - Take precautionary measures against static discharge P261 - Avoid breathing fume, mist, spray, vapours P264 - Wash Both hands thoroughly after handling P270 - Do no eat, drink or smoke when using this product

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- P271 Use only outdoors or in a well-ventilated area
- P272 Contaminated work clothing should not be allowed out of the workplace
- P273 Avoid release to the environment
- P280 Wear eye protection, face protection, protective clothing, protective gloves

P284 - Wear respiratory protection P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell P302+P352 - IF ON SKIN: Wash with plenty of soap and water

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower

P304+P340 - IF INHALED: remove victim 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/physician

P312 - Call a POISON CENTER/doctor/physician if you feel unwell

P330 - If swallowed, rinse mouth

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

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

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or

doctor/physician

P362 - Take off contaminated clothing and wash before reuse

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

P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide., Dry chemical, Water sprav for extinction

P403+P235 - Store in a well-ventilated place. Keep cool

P501 - Dispose of contents/container to Comply with applicable regulations.

2.3. **Other hazards**

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable 2 2 Mive

3.2. Mixture			
Name	Product identifier	%	Classification according to Directive 67/548/EEC
WATER UNLABELED	(CAS No)7732-18-5 (Unlabeled) (EC no)231-791-2	84.9478	Not classified
DIETHYLAMINE UNLABELED	(CAS No)109-89-7 (EC no)203-716-3	15.0416	Xn; R20/21/22 T; R24 Xi; R38 Xi; R41 R42 R43 F; R11 R52
DESETHYLHYDROXYATRAZINE UNLABELED	(CAS No)19988-24-0 (Unlabeled)	0.0106	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
WATER UNLABELED	(CAS No)7732-18-5 (Unlabeled) (EC no)231-791-2	84.9478	Not classified
DIETHYLAMINE UNLABELED	(CAS No)109-89-7 (EC no)203-716-3	15.0416	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335
DESETHYLHYDROXYATRAZINE UNLABELED	(CAS No)19988-24-0 (Unlabeled)	0.0106	Not classified
Name	Product identifier	%	GHS-US classification

Safety Data Sheet according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DIETHYLAMINE UNLABELED	(CAS No)109-89-7	15.0416	Flam. Liq. 2, H225
			Acute Tox. 4 (Oral), H302
			Acute Tox. 4 (Dermal), H312
			Acute Tox. 4 (Inhalation), H332
			Skin Irrit. 2, H315
			Eye Dam. 1, H318
			Resp. Sens. 1, H334
			Skin Sens. 1, H317
			Aquatic Acute 3, H402

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures		
4.1. Description of first aid measures		
First-aid measures general	:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
First-aid measures after inhalation	:	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	:	Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after ingestion	:	Rinse mouth. Call a POISON CENTER/doctor/physician if you feel unwell.
4.2. Most important symptoms and effe	cts,	both acute and delayed
Symptoms/injuries after inhalation	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Symptoms/injuries after skin contact	:	Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin. Causes skin irritation.
Symptoms/injuries after eye contact	:	Causes serious eye damage.
Symptoms/injuries after ingestion	:	Swallowing a small quantity of this material will result in serious health hazard.
4.3. Indication of any immediate medica	al at	tention and special treatment needed
No additional information available		
SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
5.2. Special hazards arising from the su	ıbst	ance or mixture
Fire hazard	:	Highly flammable liquid and vapour.
Explosion hazard	:	May form flammable/explosive vapour-air mixture.
Reactivity	:	Vapors may form explosive mixture with air.
5.3. Advice for firefighters		
Protection during firefighting	:	Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release mea	su	res
6.1. Personal precautions, protective e	quip	ment and emergency procedures
General measures	:	Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.
6.1.1. For non-emergency personnel		
Emergency procedures	:	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapours can accumulate in low areas.
6.1.2. For emergency responders No additional information available		
6.2. Environmental precautions		
Prevent further leakage or spillage if safe to do	SO.	Do not let product enter drains. Discharge into the environment must be avoided.
6.3. Methods and material for containm	ent	and cleaning up
For containment	:	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet- brushing and place in container for disposal according to local regulations.

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6.4. Reference to other s		
No additional information availa	ble	
SECTION 7: Handling a	nd storage	
7.1. Precautions for safe	handling	
Additional hazards when proces	ssed : Handle empty containers	with care because residual vapours are flammable.
Precautions for safe handling	: No naked lights. No smo	king. Use only non-sparking tools.
Hygiene measures	: Handle in accordance wi breaks and at the end of	th good industrial hygiene and safety practice. Wash hands before workday.
7.2. Conditions for safe	storage, including any incompatibilities	
Technical measures	: Proper grounding proced container and receiving e	lures to avoid static electricity should be followed. Ground/bond equipment.
Storage conditions	: Store at room temperature	re away from light and moisture.
Incompatible materials	: Heat sources.	
7.3. Specific end use(s)		
No additional information availa	ble	
	controls/porconal protoction	
	controls/personal protection	
	ZINE UNLABELED 100 UG/ML IN 80% H2O	
Italy - Portugal- USA ACGIH	ACGIH TWA (ppm)	5.0000000000 ppm Eye & Upper Respiratory Tract irritation. Not classifiable as a human carcinogen
Italy - Portugal- USA ACGIH	ACGIH STEL (ppm)	15.0000000000 ppm Eye & Upper Respiratory Tract irritation. Not classifiable as a human carcinogen
DIETHYLAMINE UNLABELE	D (109-89-7)	
Italy - Portugal- USA ACGIH	ACGIH TWA (ppm)	5.0000000000 ppm Eye & Upper Respiratory Tract irritation. Not classifiable as a human carcinogen
Italy - Portugal- USA ACCIH		15 00000000 ppm Eve & Upper Pespiratory Tract

ocorron o. Exposure c	ontrois/personal protection	
8.1. Control parameters		
DESETHYLHYDROXYATRAZ	INE UNLABELED 100 UG/ML IN 80% H2O/ 20% DIETH	IYLAMINE
Italy - Portugal- USA ACGIH	ACGIH TWA (ppm)	5.0000000000 ppm Eye & Upper Respiratory Tract irritation. Not classifiable as a human carcinogen
Italy - Portugal- USA ACGIH	ACGIH STEL (ppm)	15.0000000000 ppm Eye & Upper Respiratory Tract irritation. Not classifiable as a human carcinogen
DIETHYLAMINE UNLABELEI	D (109-89-7)	
Italy - Portugal- USA ACGIH	ACGIH TWA (ppm)	5.0000000000 ppm Eye & Upper Respiratory Tract irritation. Not classifiable as a human carcinogen
Italy - Portugal- USA ACGIH	ACGIH STEL (ppm)	15.000000000 ppm Eye & Upper Respiratory Tract irritation. Not classifiable as a human carcinogen
USA OSHA	OSHA PEL (TWA) (ppm)	10.000000000 ppm USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000
USA OSHA	OSHA PEL (STEL) (ppm)	25.000000000 ppm USA. OSHA - Table Z-1 Limits for Air Contaminants - 1910.1000

- **Exposure controls** 8.2.
- Personal protective equipment

: Safety glasses. Gloves. Respiratory protection of the dependent type. Protective clothing.



Hand protection
Eye protection
Skin and body protection
Respiratory protection

:	protective gloves.	
	Wear cafety glasses with side of	-

- : Wear safety glasses with side shields (or goggles) and a face shield.
- : Wear suitable protective clothing.
 - : In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemica	properties
9.1. Information on basic physical and	chemical properties
The properties listed below are for the solvent, the main comp	onent of this mixture.
Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 73.14
Colour	: No data available.
Odour	: No data available.
Odour threshold	: No data available
рН	: 13 at 100 g/l at 20 °C (68 °F)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -50 °C (-58 °F)
Freezing point	: No data available

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Boiling point	: 55 °C (131 °F)
Flash point	: -23 °C (-9 °F) - closed cup
Self ignition temperature	: 312 °C (594 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour
Vapour pressure	: 241.936 hPa (181.467 mmHg) at 20°C (68°F),974.637 hPa(731.038 mmHg) at 20°C (68°F)
Relative vapour density at 20 °C	: 2.53 - (Air = 1.0)
Relative density	: No data available
Solubility	: Water: 100 %
Log Pow	: 0.58
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1.8 - 10.1 % (V)

9.2. **Other information**

No additional information available

SECTION 10: Stability and reactivity	
10.1. Reactivity	
Vapors may form explosive mixture with air.	
10.2. Chemical stability	
See storage and expiration date on CoA.	
10.3. Possibility of hazardous reactions	
No additional information available	
10.4. Conditions to avoid	
Open flame. Direct sunlight.	
10.5. Incompatible materials	
Aldehydes, Alcohols, Dicyanofurazan, Ketones, Ph	nenols, Acids, Halogenated.
10.6. Hazardous decomposition products	
May release flammable gases.	
SECTION 11: Toxicological information	n
11.1. Information on toxicological effects	
	: Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.
DESETHYLHYDROXYATRAZINE UNLABELED	0 100 UG/ML IN 80% H2O/ 20% DIETHYLAMINE
LD50 oral rat	540 mg/kg
LD50 dermal rabbit	577 mg/kg
LC50 inhalation rat (ppm)	4000 ppm - 4h
ATE (oral)	500.000 mg/kg bodyweight
ATE (dermal)	1100.000 mg/kg bodyweight
ATE (gases)	
	4500.000 ppmV/4h
ATE (vapours)	4500.000 ppmV/4h 11.000 mg/l/4h
ATE (vapours)	11.000 mg/l/4h
ATE (vapours) ATE (dust,mist)	11.000 mg/l/4h
ATE (vapours) ATE (dust,mist) DIETHYLAMINE UNLABELED (109-89-7)	11.000 mg/l/4h 1.500 mg/l/4h
ATE (vapours) ATE (dust,mist) DIETHYLAMINE UNLABELED (109-89-7) LD50 oral rat	11.000 mg/l/4h 1.500 mg/l/4h 540 mg/kg
ATE (vapours) ATE (dust,mist) DIETHYLAMINE UNLABELED (109-89-7) LD50 oral rat LD50 dermal rabbit	11.000 mg/l/4h 1.500 mg/l/4h 540 mg/kg 577 mg/kg
ATE (vapours) ATE (dust,mist) DIETHYLAMINE UNLABELED (109-89-7) LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (ppm)	11.000 mg/l/4h 1.500 mg/l/4h 540 mg/kg 577 mg/kg 4000 ppm - 4h
ATE (vapours) ATE (dust,mist) DIETHYLAMINE UNLABELED (109-89-7) LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (ppm) ATE (oral)	11.000 mg/l/4h 1.500 mg/l/4h 540 mg/kg 577 mg/kg 4000 ppm - 4h 540.000 mg/kg bodyweight
ATE (vapours) ATE (dust,mist) DIETHYLAMINE UNLABELED (109-89-7) LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (ppm) ATE (oral) ATE (dermal)	11.000 mg/l/4h 1.500 mg/l/4h 540 mg/kg 577 mg/kg 4000 ppm - 4h 540.000 mg/kg bodyweight 577.000 mg/kg bodyweight
ATE (vapours) ATE (dust,mist) DIETHYLAMINE UNLABELED (109-89-7) LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (ppm) ATE (oral) ATE (dermal) ATE (dust,mist)	11.000 mg/l/4h 1.500 mg/l/4h 540 mg/kg 577 mg/kg 4000 ppm - 4h 540.000 mg/kg bodyweight 577.000 mg/kg bodyweight

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Skin corrosion/irritation	: Causes skin irritation.
	Skin - rabbit - Severe skin irritation
	pH: 13 at 100 g/l at 20 °C (68 °F)
Serious eye damage/irritation	: Causes serious eye damage.
	No data available
	pH: 13 at 100 g/l at 20 °C (68 °F)
Respiratory or skin sensitisation	: Not available
	May cause allergic respiratory and skin reactions.
Germ cell mutagenicity	: Not available
Carcinogenicity	: This product is or contains a component that is not classifiable as to its carcinogenicity on its IARC, ACGIH, NTP, or EPA classification.
Reproductive toxicity	: Not available
Specific target organ toxicity (single exposure)	: Not classified
	No data available
Specific target organ toxicity (repeated	: Not classified
exposure)	No data available
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin.
Symptoms/injuries after inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin. Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information	
12.1. Toxicity	
DESETHYLHYDROXYATRAZINE UNLABELED	100 UG/ML IN 80% H2O/ 20% DIETHYLAMINE
LC50 fishes 1	25 - 198 mg/l Orcorhynchus mykiss (Rainbow trout) - 96h
EC50 Daphnia 1	56 mg/l Daphnia manga (Water flea) - 48h
ErC50 (algae)	20 mg/l 96h
DIETHYLAMINE UNLABELED (109-89-7)	
LC50 fishes 1	25 - 198 mg/l Orcorhynchus mykiss (Rainbow trout) - 96h
EC50 Daphnia 1	56 mg/l Daphnia manga (Water flea) - 48h
ErC50 (algae)	20 mg/l 96h

12.2. Persistence and degradability

WATER UNLABELED (7732-18-5 (Unlabele	
Persistence and degradability	Not available.
DESETHYLHYDROXYATRAZINE UNLABE	LED (19988-24-0 (Unlabeled))
Persistence and degradability	Not available.
2.3. Bioaccumulative potential	
DESETHYLHYDROXYATRAZINE UNLABE	LED 100 UG/ML IN 80% H2O/ 20% DIETHYLAMINE
Log Pow	0.58
Bioaccumulative potential	Not available.
DIETHYLAMINE UNLABELED (109-89-7)	
Log Pow	0.58
Bioaccumulative potential	Not available.
WATER UNLABELED (7732-18-5 (Unlabele	ed))
Log Pow	No data available
Bioaccumulative potential	Not available.

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cording to Regulation (EC) No. 453/2010 and accordi	ing to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Bioaccumulative potential	Not available.
12.4. Mobility in soil	
DESETHYLHYDROXYATRAZINE UNLABEL	LED 100 UG/ML IN 80% H2O/ 20% DIETHYLAMINE
Ecology - soil	Not available.
DIETHYLAMINE UNLABELED (109-89-7)	
Ecology - soil	Not available.
WATER UNLABELED (7732-18-5 (Unlabeled Ecology - soil	(b) Not available.
Ecology - soil	Not available.
12.5. Results of PBT and vPvB assessm	nent
No additional information available	
12.6. Other adverse effects	
Other adverse effects	: An environmental hazard cannot be excluded in the event of an unprofessional handling or disposal. Harmful to aquatic life.
SECTION 13: Disposal consideratio	ons
13.1. Waste treatment methods	
Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable.
SECTION 14: Transport information	
n accordance with ADR / RID / ADNR / IMDG /	
4.1. UN number	
JN-No.(DOT)	: 1154
DOT NA no.	UN1154
14.2. UN proper shipping name	
DOT Proper Shipping Name	: Diethylamine
Department of Transportation (DOT) Hazard	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Classes	
Hazard labels (DOT)	: 3 - Flammable liquid 8 - Corrosive
Packing group (DOT)	: II - Medium Danger
DOT Special Provisions (49 CFR 172.102)	 A3 - For combination packagings, if glass inner packagings (including ampoules) are used, they must be packed with absorbent material in tightly closed metal receptacles before packing in outer packagings. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31H21). 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. N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.
	T7 - 4 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	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
DOT Packaging Exceptions (49 CFR 173.xxx) DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx)	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.

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14.3. Additional information	
Other information	: No supplementary information available.
Overland transport	
Packing group (ADR)	: 11
Class (ADR)	: 3 - Flammable liquids
Hazard identification number (Kemler No.)	: 338
Classification code (ADR)	: FC
Danger labels (ADR)	: 3 - Flammable liquids 8 - Corrosive substances
Orange plates	338 1154
Tunnel restriction code	: D/E
Limited quantities (ADR)	1L
EAC code	: •2WE
APP code	: A(fl)
Excepted quantities (ADR)	: E2
Transport by sea	
DOT Vessel Stowage Location	: E - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
MFAG-No	: 132
Air transport	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 1L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 5L
Civil Aeronautics Law	: Flammable liquids(Hazardous materials notice Appended Table 1 Article 194 of the Enforcement Regulations)
14.4. Environmental hazards	
Other information	: No supplementary information available.

	14.5.	Special	precautions	for	user	
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14.6. 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	
DESETHYLHYDROXYATRAZINE UNLABELED	100 UG/ML IN 80% H2O/ 20% DIETHYLAMINE
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
DIETHYLAMINE UNLABELED (109-89-7)	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard

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15.2. International regulations

CANADA

No additional information available

15.2.1. National regulations

No additional information available

DESETHYLHYDROXYATRAZINE UNLA	BELED 100 UG/ML IN 80% H2O/ 20% DIETHYLAMINE()
State or local regulations	U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

DIETHYLAMINE UNLABELED (109-89-7)

U.S. - Massachusetts - Right To Know List

U.S. - Pennsylvania - RTK (Right to Know) List

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

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

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Acute toxicity (dermal), Category 3
Acute toxicity (dermal), Category 4
Acute toxicity (inhal.), Category 4
Acute toxicity (inhalation:dust,mist) Category 4
Acute toxicity (oral), Category 4
Serious eye damage/eye irritation, Category 1
Flammable liquids, Category 2
Sensitisation — Respiratory, category 1
Skin corrosion/irritation, Category 2
Sensitisation — Skin, category 1
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
Highly flammable liquid and vapour
Harmful if swallowed
Toxic in contact with skin
Harmful in contact with skin
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
Harmful if inhaled
May cause allergy or asthma symptoms or breathing difficulties i inhaled
May cause respiratory irritation
Highly flammable
Harmful by inhalation, in contact with skin and if swallowed
Harmful in contact with skin
Toxic in contact with skin
Irritating to skin
Risk of serious damage to eyes
May cause sensitization by inhalation
May cause sensitisation by skin contact
Harmful to aquatic organisms
Highly flammable
Toxic
Irritant

NFPA health hazard	: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard	: 3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability	: 3 Serious Hazard
Physical	: 0 Minimal Hazard

CIL Mixture SDS

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