

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

Date of issue: 08/07/2014 Revision date: : Version:

CLM-3045-S

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

1.1. Product identifier

Product form : Mixtures

Product name. : SULFAMETHAZINE (PHENYL-13C6, 90%) 100 UG/ML IN ACETONITRILE

Product code : CLM-3045-S

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.

50 Frontage Road Andover, MA 01810

USA

Emergency telephone number

Emergency numbers:

Chemtrec: 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 (Dermal)
 H312

 Acute Tox. 4 (Inhalation:gas)
 H332

 Eye Dam. 1
 H318

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11 Xn; R20/21/22 Xi; R41

Full text of R-phrases: see section 16

Classification (GHS-US)

 Flam. Liq. 2
 H225

 Acute Tox. 4 (Oral)
 H302

 Acute Tox. 4 (Dermal)
 H312

 Acute Tox. 4 (Inhalation:gas)
 H332

 Eye Dam. 1
 H318

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)







GHS02 GHS05

5 GHS07

Signal word (CLP) : Danger

Hazardous ingredients : ACETONITRILE UNLABELED

Hazard statements (CLP) : H225 - Highly flammable liquid and vapor

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

H318 - Causes serious eye damage

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical, ventilating, lighting equipment P261 - Avoid breathing dust, fume, gas, mist, spray, vapors P264 - Wash Both hands thoroughly after handling

P270 - Do no eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area

GHS-US labeling

Hazard pictograms (GHS-US)







Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

H318 - Causes serious eye damage

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 dust, fume, mist, spray, vapors, gas
P264 - Wash Both hands thoroughly after handling
P270 - Do no eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves

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. Pince skip with water/shower.

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 P321 - Specific treatment (see Hazard pictograms (CLP) on this label)

P330 - If swallowed, rinse mouth

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 spray 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

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SECTION 3: Composition/information on ingredients

Substances

Not applicable

3.2 **Mixtures**

Name	Product identifier	%	Classification according to Directive 67/548/EEC
ACETONITRILE UNLABELED	(CAS No)75-05-8 (EC no)200-835-2 (EC index no)608-001-00-3	99.9873	F; R11 Xn; R20/21/22 Xi; R41
SULFAMETHAZINE (PHENYL-13C6, 99%)	(CAS No)77643-91-5 (EC no)200-346-4	0.0127	Not classified

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ACETONITRILE UNLABELED	(CAS No)75-05-8 (EC no)200-835-2 (EC index no)608-001-00-3	99.9873	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318
SULFAMETHAZINE (PHENYL-13C6, 99%)	(CAS No)77643-91-5 (EC no)200-346-4	0.0127	Not classified

Name	Product identifier	%	Classification (GHS-US)
ACETONITRILE UNLABELED	(CAS No)75-05-8	99.9873	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318

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

SECTION 4: First aid measures

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

First-aid measures after inhalation Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

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

Immediately call a POISON CENTER or doctor/physician. Specific measures (see Hazard pictograms (CLP) on this label). Wash with plenty of soap and water. Wash contaminated clothing before reuse.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to First-aid measures after eye contact

do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

: Rinse mouth. Call a POISON CENTER/doctor/physician if you feel unwell. First-aid measures after ingestion

Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if

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 serious eye damage. Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

Indication of any immediate medical attention and special treatment needed

No additional information available

Symptoms/injuries after eye contact

SECTION 5: Firefighting measures

Extinguishing media

suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

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

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5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment 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

No additional information available

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 containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

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

: No naked lights. No smoking. Use only non-sparking tools. Use only outdoors or in a well-

ventilated area. Avoid breathing dust, mist or spray.

Hygiene measures : Do no eat, drink or smoke when using this product. Wash Both hands thoroughly after handling.

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 equipment.

Storage conditions : Store at room temperature away from light and moisture.

Incompatible materials : Heat sources

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ACETONITRILE UNLABELED (75-05-8)		
Italy - Portugal- USA ACGIH	ACGIH TWA (ppm)	20.0000000000 ppm Lower Respiratory Tract irritation. Not classifiable as a human carcinogen.
USA OSHA	OSHA PEL (TWA) (ppm)	40.0000000000 ppm
USA OSHA	OSHA PEL (STEL) (ppm)	60.0000000000 ppm

8.2. Exposure controls

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state : Liquid

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Appearance

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

: Liquid, clear. Molecular mass : 41.05 Color : Colourless. Odor : Pungent. Odor threshold : No data available : No data available рΗ Relative evaporation rate (butyl acetate=1) : No data available : -48 °C (-54°F) Melting point Freezing point : No data available : 81 - 82 °C (178 - 180 °F) Boiling point Flash point : 2.0 °C (35.6 °F) - closed cup

Self ignition temperature : 523 °C (973 °F) Decomposition temperature : No data available

Flammability (solid, gas) : Highly flammable liquid and vapor

Vapor pressure : 73.18 hPa (54.89 mmHg) at 15°C (59 °F), 119.81 hPa (89.86 mmHg) at 25°C(77 °F)

Relative vapor density at 20 °C : No data available Relative density : No data available Solubility : Water: 100 % Log Pow

Log Kow : No data available Viscosity, kinematic : No data available : No data available Viscosity, dynamic Explosive properties : No data available : No data available Oxidizing properties : 4.4 - 16 vol % Explosive limits

Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

Chemical stability

See storage and expiration date on CoA.

Possibility of hazardous reactions

No additional information available

Conditions to avoid

Open flame. Direct sunlight.

Incompatible materials

No additional information available

Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

Information on toxicological effects 11.1.

Acute toxicity : Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

SULFAMETHAZINE (PHENYL-13C6, 90%) 100 UG/ML IN ACETONITRILE		
ATE (oral)	500.000 mg/kg body weight	
ATE (dermal)	1100.000 mg/kg body weight	
ATE (gases)	4500.000 ppmV/4h	

ACETONITRILE UNLABELED (75-05-8)	
LD50 oral rat	2460 mg/kg
LD50 dermal rabbit	2000 mg/kg
LC50 inhalation rat (ppm)	7551 ppm - 8h
ATE (oral)	500.000 mg/kg body weight
ATE (dermal)	2000.000 mg/kg body weight

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according to regulation (EO) 140: 400/2010 and according	g to 1 educat Register 7 vol. 77, No. 307 Monday, Maron 20, 2012 7 Rates and Regulations
ACETONITRILE UNLABELED (75-05-8)	
ATE (gases)	4500.000 ppmV/4h
ATE (vapors)	11.000 mg/l/4h
ATE (dust, mist)	1.500 mg/l/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
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.

SECTION 12: Ecological information

Symptoms/injuries after eye contact

Symptoms/injuries after ingestion

12.1. Toxicity

ACETONITRILE UNLABELED (75-05-8)		
LC50 fish 1	1640.00 mg/l Pimephales promelas (fathead minnow) - 96h	
EC50 Daphnia 1 3600 mg/l Daphnia magna (Water flea) - 48h		
NOEC (chronic)	640 mg/l Daphnia magna (Water flea) - 14d	

: Swallowing a small quantity of this material will result in serious health hazard.

: Causes serious eye damage.

12.2. Persistence and degradability

SULFAMETHAZINE (PHENYL-13C6, 99%) (77643-91-5)	
Persistence and degradability	Not available.
ACETONITRILE UNLABELED (75-05-8)	
ACETONITRILE UNLABELED (75-05-8)	

12.3. Bioaccumulative potential

SULFAMETHAZINE (PHENYL-13C6, 90%) 100	UG/ML IN ACETONITRILE
Log Pow	-0.34

SULFAMETHAZINE (PHENYL-13C6, 99%) (77643-91-5)

Bioaccumulative potential Not available.

ACETONITRILE UNLABELED (75-05-8)	
Log Pow	-0.34
Bioaccumulative potential	Not available.

12.4. Mobility in soil

SULFAMETHAZINE (PHENYL-13C6, 99%) (77643-91-5)		
Ecology - soil Not available.		
ACETONITRILE UNLABELED (75-05-8)		
Ecology - soil Not available.		

12.5. Results of PBT and vPvB assessment

No additional information available

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Other adverse effects

No additional information available

SECTION 13: Disposal considerations

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 of contents/container to Comply with applicable regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

UN number

UN-No.(DOT) : 1648 DOT NA no. UN1648

UN proper shipping name

DOT Proper Shipping Name

Department of Transportation (DOT) Hazard

Classes

: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid



: Acetonitrile

Packing group (DOT)

: II - Medium Danger

DOT Special Provisions (49 CFR 172.102) IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). 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.

T7 - 4 178.274(d)(2) Normal................ 178.275(d)(3)
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59

F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) 150 DOT Packaging Non Bulk (49 CFR 173.xxx) : 202 : 242 DOT Packaging Bulk (49 CFR 173.xxx)

Additional information

Other information : No supplementary information available.

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Overland transport

Packing group (ADR) : II

Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 33 Classification code (ADR) : F1

Danger labels (ADR) : 3 - Flammable liquids

3

Orange plates :

33 1648

Tunnel restriction code : D/E
Limited quantities (ADR) 1L
EAC : •2YE
Excepted quantities (ADR) : E2

Transport by sea

DOT Vessel Stowage Location : B - (i) 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; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

MFAG-No : 127

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

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

SULFAMETHAZINE (PHENYL-13C6, 90%) 100 UG/ML IN ACETONITRILE

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 311/312 Hazard Classes

Fire hazard

Immediate (acute) health hazard

Delayed (chronic) health hazard

ACETONITRILE UNLABELED (75-05-8)

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 311/312 Hazard Classes Fire hazard

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

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15.2. International regulations

CANADA

SULFAMETHAZINE (PHENYL-13C6, 90%) 100 UG/ML IN ACETONITRILE

Listed on the Canadian DSL (Domestic Substances List) inventory.

ACETONITRILE UNLABELED (75-05-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

15.2.1. National regulations

No additional information available

15.3. US State regulations

SULFAMETHAZINE (PHENYL-13C6, 90%) 100 UG/ML IN ACETONITRILE()		
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 State of California to cause cancer,	
	birth defects, or any other reproductive harm.	

ACETONITRILE UNLABELED (75-05-8)

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 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.

Full text of R-, H- and EUH-phrases::

tox or tr, iii and zori pinacco.	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Flam. Liq. 2	Flammable liquids Category 2
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H312	Harmful in contact with skin
H318	Causes serious eye damage
H332	Harmful if inhaled
R11	Highly flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R41	Risk of serious damage to eyes
F	Highly flammable
Xi	Irritant
Xn	Harmful

NFPA health hazard : 2 - Intense or continued exposure could cause temporary

incapacitation or possible residual injury unless prompt

medical attention is given.

NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all

ambient conditions.

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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

3

0

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

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