

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 1/3/2011 Revision date: 10/2/2023 Supersedes: 1/21/2022 Version: 4.1

SECTION 1: Identification	
1.1. Identification	
Product form Substance name CAS-No. Product code Formula Synonyms	<ul> <li>Substance</li> <li>(AMINOMETHYL)PHOSPHONIC ACID (AMPA) (13C, 99%; 15N, 98%; METHYLENE-D2, 98%)</li> <li>2483829-28-1</li> <li>CDNLM-6786</li> <li>*CH4D2*NO3P</li> <li>Phosphaglycine</li> </ul>
1.2. Recommended use and restrictions	on use
No additional information available	
1.3. Supplier	
Cambridge Isotope Laboratories, Inc. 50 Frontage Rd 01810 ANDOVER, MA, 01810 USA T 1-800-322-1174 <u>cilsales@isotope.com</u> - <u>www.isotope.com</u> <b>1.4. Emergency telephone number</b>	
Emergency number	: 1-703-741-5970 Chemtrec 1-800-424-9300 24 hours
SECTION 2: Hazard(s) identification	
2.1. Classification of the substance or m	ixture
GHS US classification Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2 Full text of H statements : see section 16	H315Causes skin irritationH319Causes serious eye irritation
2.2. GHS Label elements, including preca	autionary statements
GHS US labeling Hazard pictograms (GHS US)	
Signal word (GHS US) Hazard statements (GHS US) Precautionary statements (GHS US)	<ul> <li>Warning</li> <li>H315 - Causes skin irritation</li> <li>H319 - Causes serious eye irritation</li> <li>P264 - Wash hands, forearms and face thoroughly after handling.</li> <li>P280 - Wear protective clothing, protective gloves.</li> <li>P302+P352 - If on skin: Wash with plenty of water.</li> <li>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> </ul>

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P321 - Specific treatment (see Hazardous component(s) for labeling on this label).
P332+P313 - If skin irritation 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.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

#### Not applicable

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

#### 3.1. Substances

Name	Product identifier	%	GHS US classification
(AMINOMETHYL)PHOSPHONIC ACID (AMPA) (13C, 99%; 15N, 98%; METHYLENE-D2, 98%) (Main constituent)	CAS-No.: 2483829- 28-1	100	Skin Irrit. 2, H315 Eye Irrit. 2, H319

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

#### 3.2. Mixtures

Not applicable

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures general First-aid measures after inhalation	<ul> <li>If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.</li> <li>When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.</li> </ul>
First-aid measures after skin contact	: Wash with plenty of soap and water. Get immediate medical advice/attention. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.
First-aid measures after eye contact	<ul> <li>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.</li> </ul>
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention. Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.
4.2. Most important symptoms and effects	s (acute and delayed)
Potential Adverse human health effects and symptoms	: 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. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	<ul> <li>May be harmful if inhaled. May cause respiratory irritation.</li> <li>Causes skin irritation.</li> <li>Causes serious eye irritation.</li> <li>May be harmful if swallowed.</li> </ul>

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

No additional information available

SECTION 5: Fire-fighting measures			
5.1. Suitable (and unsuitable) extinguishing	media		
Suitable extinguishing media	: Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).		
5.2. Specific hazards arising from the chemical			
Reactivity in case of fire Hazardous decomposition products in case of fire	<ul><li>Corrosive vapors.</li><li>Carbon oxides (CO, CO2). Nitrogen oxides. Oxides of phosphorus.</li></ul>		
5.3. Special protective equipment and precautions for fire-fighters			
Firefighting instructions	: Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.		
Protection during firefighting	: Wear recommended personal protective equipment. Do not attempt to take action without suitable protective equipment.		

SECTION 6: Accidental release measures	
6.1. Personal precautions, protective	equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Avoid breathing vapors, mist, gas. Avoid dust formation.
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	
Prevent entry to sewers and public waters. D	o not allow to enter drains or water courses. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up		
For containment Methods for cleaning up	<ul> <li>Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.</li> <li>This material and its container must be disposed of in a safe way, and as per local legislation.</li> </ul>	
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	: Provide adequate ventilation to minimize dust and/or vapor concentrations. Do not breathe dust, fume, gas, mist, vapors, spray. Avoid contact during pregnancy/while nursing.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice.

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:

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

Technical measures

Store in a well-ventilated place. Keep container tightly closed. Comply with applicable regulations.

Storage conditions

: Store at room temperature away from light and moisture.

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

#### 8.1. Control parameters

# (AMINOMETHYL)PHOSPHONIC ACID (AMPA) (13C, 99%; 15N, 98%; METHYLENE-D2, 98%) (2483829-28-1) No additional information available 8.2. Appropriate engineering controls Appropriate engineering controls Environmental exposure controls S.3. Individual protection measures/Personal protective equipment Personal protective equipment: Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus. Materials for protective clothing:

Wear suitable protective clothing and gloves

#### Hand protection:

Wear suitable protective clothing and gloves

#### Eye protection:

Chemical goggles or face shield. Wear eye protection. Chemical goggles or face shield with safety glasses

#### Skin and body protection:

Wear suitable protective clothing, gloves and eye/face protection. Wear suitable protective clothing

#### **Respiratory protection:**

In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator

#### Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties		
9.1. Information on basic p	physical and chemical properties	
Physical state	: Solid	
Appearance	: Solid.	
Color	: White	

Odor

: No data available

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Odor threshold	· No data available
рН	: 2.8
Melting point	: 120 °C (248 °F)
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 0.6 g/cm <sup>3</sup> at 20 °C (68 °F)
Molecular mass	: 115.04 g/mol (Labeled)
Solubility	: No data available
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	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

#### 9.2. Other information

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
Thermal decomposition generates : Corrosive vapors.
10.2. Chemical stability
Stable if stored under recommended conditions.
10.3. Possibility of hazardous reactions
No additional information available
10.4. Conditions to avoid
No additional information available
10.5. Incompatible materials
Strong bases. Oxidizing agent. Water.
10.6. Hazardous decomposition products
Carbon oxides (CO, CO2). Oxides of phosphorus. Nitrogen oxides.
SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral)

: Not classified

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Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes skin irritation.
	pH: 2.8
Serious eye damage/irritation	: Causes serious eye irritation.
	pH: 2.8
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Potential Adverse human health effects and	: This information is based on our current knowledge and is intended to describe the product for
symptoms	the purposes of health, safety and environmental requirements only. It should not therefore be
	construed as guaranteeing any specific property of the product. Material is extremely destructive
	to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

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.
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Other adverse effects	
Other adverse effects	: Disposal must be done according to official regulations. Avoid release to the environment.

SECTION 13: Disposal considerations				
13.1. Disposal methods				
Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.			
Product/Packaging disposal recommendations	: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.			
Ecology - waste materials	: Dispose of as unused product.			

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SECTION 14: Transport information	
In accordance with DOT / TDG / IMDG / IATA	
14.1. UN number	
Not regulated for transport	
14.2. UN proper shipping name	
Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
14.3. Transport hazard class(es)	
<b>DOT</b> Transport hazard class(es) (DOT)	: Not applicable
<b>TDG</b> Transport hazard class(es) (TDG)	: Not applicable
IMDG Transport hazard class(es) (IMDG)	: Not applicable
IATA Transport hazard class(es) (IATA)	: Not applicable
14.4. Packing group	
Packing group (DOT) Packing group (TDG) Packing group (IMDG) Packing group (IATA)	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
14.5. Environmental hazards	
Other information	: No supplementary information available.
14.6. Special precautions for user	
Special transport precautions	: Not classified as dangerous in the meaning of transport regulations
DOT No data available	
<b>TDG</b> No data available	
IMDG No data available	
IATA No data available	
14.7. Transport in bulk according to Anne	x II of MARPOL 73/78 and the IBC Code
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Not applicable

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#### **SECTION 15: Regulatory information**

#### **15.1. US Federal regulations**

(AMINOMETHYL)PHOSPHONIC ACID (AMPA) (13C, 99%; 15N, 98%; METHYLENE-D2, 98%) (2483829-28-1)					
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporing requirements of the United States SARA Section 302.				
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard				
Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):					
Name	CAS-No.	Listing	Commercial status	Flags	
(AMINOMETHYL)PHOSPHONIC ACID (AMPA) (13C, 99%; 15N, 98%; METHYLENE-D2, 98%)	2483829-28-1	Not present	-		

#### 15.2. International regulations

#### CANADA

(AMINOMETHYL)PHOSPHONIC ACID (AMPA) (13C, 99%; 15N, 98%; METHYLENE-D2, 98%) (2483829-28-1)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### **EU-Regulations**

No additional information available

#### National regulations

(AMINOMETHYL)PHOSPHONIC ACID (AMPA) (13C, 99%; 15N, 98%; METHYLENE-D2, 98%) (2483829-28-1)

: 10/02/2023

Listed on TECI (Thailand Existing Chemicals Inventory)

#### 15.3. US State regulations

No additional information available

#### SECTION 16: Other information

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Revision date 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 H-phrases		
H315	Causes skin irritation	
H319	Causes serious eye irritation	

Safety Data Sheet (SDS), USA

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