abbvie

SAFETY DATA SHEET

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: Aminoethoxyvinylglycine (AVG)

Synonyms: AVG; Aminoethoxyvinylglycine; ABG-3097 Technical Powder

Drug Code Number: 42789; 49466

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

Recommended use: Plant growth regulator

1.3 Details of the supplier of the safety data sheet

Supplier: AbbVie Inc.
1 North Waukegan Road
North Chicago, IL 60064
USA
+1-847-932-7900

Customer Service Telephone: 1-800-255-5162 (US and Canada only)
+1-847-937-7433

E-mail Address: AbbVie.SDS@abbvie.com

1.4 Emergency telephone number

Emergency Telephone: CHEMTREC: 1(800) 424-9300 (in USA and Canada)
or +1-703-527-3887 (international)

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute inhalation toxicity	Category 4
Serious eye damage/eye irritation	Category 2

Classification according to EU Directives 67/548/EEC or 1999/45/EC

2.2 Label elements

Signal Word: Warning

Hazard Statements:
H302 - Harmful if swallowed
H320 - Causes eye irritation

Precautionary Statements
P233 - Keep container tightly closed
P262 - Do not get in eyes, on skin, or on clothing
P264 - Wash face, hands and any exposed skin thoroughly after handling
P281 - Use personal protective equipment as required
P314 - Get medical advice/attention if you feel unwell

2.3 Other hazards

Not determined

Section 3. Composition/information on ingredients

Chemical Name	Percent	EINECS/ELINCS Number	EEC Classification	EU - GHS Substance Classification	REACH No.
Aminoethoxyvinylglycine (AVG) 49669-74-1	100	Present		Acute Oral Tox 4 (H302); Eye Irrit 2 (H320)	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16
For the full text of the H-Statements mentioned in this Section, see Section 16

Section 4. First aid measures

4.1 Description of first aid measures

Eye Contact: Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

Skin Contact: Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

Inhalation: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

Ingestion: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

Protection of First-aiders: Use personal protective equipment

4.2 Most important symptoms and effects, both acute and delayed

Signs and Symptoms: No signs and symptoms from occupational exposure are known. Available information support the following: respiratory distress, fetal abnormalities, abnormal liver function, abnormal kidney function, eye irritation, skin irritation.

Medical Conditions Aggravated by Exposure: No medical conditions aggravated by occupational exposure are known. Data suggest any pre-existing ailments in the following organs: respiratory system, A GLP-compliant embryo-fetal development study has been conducted with ABT-414 in mice resulting in post-implantation loss of all fetuses at a human equivalent dose near the anticipated clinical dose. This result is consistent with the pharmacology of ABT-414. skin, eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Notes To Physician: Treat symptomatically

Section 5. Firefighting measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire

Unsuitable Extinguishing Media: Not determined

5.2 Special hazards arising from the substance or mixture

Special Exposure Hazards: This material is capable of forming explosive dust clouds in air, therefore, measures must be taken to avoid ignition. This material is particularly sensitive to ignition by electrostatic discharge.

5.3 Advice for firefighters

Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus and full protective gear

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions: For personal protection see section 8.

6.2. Environmental precautions

Environmental Precautions: Contain material and prevent release to waterways or soil.

6.3. Methods and material for containment and cleaning up

Methods for Cleaning Up: Recover product and place in an appropriate container for disposal. Avoid dust formation

6.4. Reference to other sections

Refer to Sections 8, 12, and 13 for further information.

Section 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store according to label instructions.

7.3. Specific end use(s)

Recommended use: Plant growth regulator

Section 8. Exposure controls/personal protection

8.1. Control parameters

Exposure limits:

Chemical Name	Employee Exposure Limit	Skin Notation
Aminoethoxyvinylglycine (AVG) 49669-74-1	20 mcg/m^3 TWA	None

8.2. Exposure controls

Engineering Controls: Use inside a hood, glovebox or process enclosure.

Respiratory Protection: An approved respirator (i.e. NIOSH, EN, etc.) should be worn when exposures are expected to exceed the applicable limits.

Eyes: Wear eye protection appropriate to handling activities.

Gloves: Impervious gloves.

Other PPE Data: Wear Tyvek coveralls during dusty operations.

Environmental Exposure Controls: Not determined

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Light Yellow Powder
Odor: Odorless.
Odor Threshold: Not determined
pH: Not determined.
Boiling Pt. @ 760 mm Hg (°C): Not determined.
Melting/Freezing Point (°C): Not determined
Flash Point (°C): Not determined.
Evaporation Rate at 20°C: Not determined.
Flammability (Solid): Not determined.
Lower Explosive Limit: Not determined.
Upper Explosive Limit: Not determined.
Vapor Pressure (mm Hg): Not determined.
Vapor Density (Air = 1): Not determined.
Specific Gravity: Not determined.
Solubility(ies): Soluble in: water.

Partition coefficient: n-octanol/water	Not determined.
Autoignition Temp. (°C):	Not determined.
Decomposition temperature (°C):	Not determined.
Viscosity (centipoise):	Not determined.
Explosion Severity:	St1
Oxidizer Properties:	Not determined.

9.2. Other information

Not determined

Maximum Pressure Rise (bar):	8.1
Max. rate of pressure rise (bar/sec):	505
Kst Value (bar.m/s):	137
Min. Ignition Energy-Cloud (mJ):	30
Min. Ignit. Temp. Dust Cloud (°C):	545
Min. Explosive Conc. (g/m³):	0.149
Min. Ignition Temp.-Layer (°C):	480

Section 10. Stability and reactivity

10.1. Reactivity

Not determined

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reactions: Not determined.

10.4. Conditions to avoid

Not determined.

10.5 Incompatible materials

Not determined

10.6 Hazardous decompostion products

Carbon oxides, Nitrogen oxides (NOx)

Section 11. Toxicological information

11.1. Information on toxicological effects

Routes of Exposure:

Oral: Unlikely

Dermal: Unlikely
Inhalation: Unlikely

Acute Toxicity - Oral: Data for component (s) given below.

Chemical Name	Acute Test	Value	Units	Species
Aminoethoxyvinylglycine (AVG) 49669-74-1	LD50 =	1840	mg/kg	Rats Mice

Acute Toxicity - Dermal: Data for component (s) given below.

Chemical Name	Acute Test	Value	Units	Species
Aminoethoxyvinylglycine (AVG) 49669-74-1	LD50 >	2000	mg/kg	Rabbits

Acute Toxicity - Inhalation: Data for component (s) given below.

Chemical Name	Test	Value	Units	Species
Aminoethoxyvinylglycine (AVG) 49669-74-1	LC 50 =	1.13	mg/L , 4 hour	Rats

Other Toxicology Data: Data for component (s) given below:

Chemical Name	Test Type	Value	Units	Species	Comments
Aminoethoxyvinylglycine (AVG) 49669-74-1	LD 50 (sc) > LD 50 (ip) >	500	mg/kg	Mice	

Corrosivity: Not determined.

Dermal Irritation: Produced mild skin irritation in rabbits.

Eye Irritation: Produced mild to moderate eye irritation in rabbits.

Sensitization: Sensitization: Negative in the maximization assay in guinea pigs at challenge concentrations.

Toxicokinetics/Metabolism: Not determined.

Target Organ Effects: Data for component (s) given below.

Chemical Name	Target Organs:	Species	Dosage	Units	Route	Duration
Aminoethoxyvinylglycine (AVG) 49669-74-1	Kidney Liver Immune System	Rats	2	mg/kg	Oral	13 weeks

Reproductive Effects: By analogy adverse reproductive effects include: reduced fertility in males, fetal abnormalities. Data for component (s) given below.

Chemical Name	Species	Dosage	Units	Route	Duration
Aminoethoxyvinylglycine (AVG) 49669-74-1	Rabbits Rats	0.7 and 8, respectively	mg/kg	Oral	During Gestation

Carcinogenicity: Not determined.

Mutagenicity: Data for component (s) given below.

Chemical Name	Micronucleus Assay	Ames Test:	Mouse Lymphoma Assay	Chromosomal Abbr. Assay
Aminoethoxyvinylglycine (AVG) 49669-74-1	Negative	Negative	Negative	Negative

Aspiration hazard: Not determined

Notes:
1. **ALD: Approximate lethal dosage**
2. **LC50: Concentration in air that produces 50% mortality**
3. **LD50: Oral or dermal dosage that produces 50% mortality**

Section 12. Ecological information

12.1. Toxicity

Not determined.

12.2. Persistence and degradability

Not determined.

12.3. Bioaccumulative potential

Not determined

12.4. Mobility in soil

Not determined.

12.5. Results of PBT or vPvB assessment

Chemical safety report is not required for this substance/product.

12.6. Other adverse effects

Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.

Notes:
1. **EC50: Concentration in water that produces 50% mortality in Daphnia sp.**
2. **LC50: Concentration in water that produces 50% mortality in fish.**
3. **EbC50/ErC50: Concentration in water that produces 50% inhibition of growth and in algae.**

Section 13. Disposal considerations

13.1 Waste treatment methods

Waste Disposal Methods: Disposal should be made in accordance with country, federal, state and local regulations.

Section 14. Transport information

ADR, DOT, ICAO/IATA, IMDG/IMO

Status: According to the transport regulations of all carriers, this is not classified as a hazardous material.

14.1. UN Number: Not Applicable
14.2. Proper shipping name: Not Applicable
14.3. Hazard class: Not Applicable
14.4. Packing group: Not Applicable
14.5. Environmental hazard: Not applicable
14.6. Special Provisions: Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

14.2. Proper shipping name: Not applicable

Section 15. Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

Chemical Name	EINECS/ ELINCS	TSCA	DSL	NDSL	PICCS
Aminoethoxyvinylglycine (AVG) 49669-74-1	Present	-	-	Not listed.	-

Chemical Name	ENCS	ISHL	IECSC	AICS	KECL	New Zealand
Aminoethoxyvinylglycine (AVG) 49669-74-1	-	-	-	-	-	

Legend
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
ISHL - Japan Industrial Safety and Health Law
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

Carcinogenicity Rating:

Chemical Name	Percent	NTP:	IARC:	ACGIH:
Aminoethoxyvinylglycine (AVG)	100	Not Listed	Not Listed	Not Listed

SARA 313 Information

Chemical Name	Percent	SARA 313 Chemical:	CERCLA RQ/SARA EHS RQ (lbs):	SARA EHS TPQ (lbs):
Aminoethoxyvinylglycine (AVG)	100	No	Not Applicable	Not applicable

Immediate Health: Yes
Delayed Health: No
Fire: No
Sudden Pressure: No
Reactivity: No

RCRA Status: Not determined.

Proposition 65 Status: Does not contain chemicals known to the state of California to cause cancer or reproductive harm.

WHMIS Hazard Class: D1B TOXIC MATERIALS.

NFPA Rating:
Health: 3
Fire: 1

Reactivity: 0

Notes:

1. SARA = Superfund Amendments and the Reauthorization Act.
2. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act.
3. FIFRA = Federal Insecticide, Fungicide and Rodenticide Act.
4. TSCA = Toxic Substances Control Act.
5. EC = European Community.
6. WHMIS = Canadian Workplace Hazardous Materials Information System.
7. UN GHS = United Nations Globally Harmonized System for Hazard Identification.

15.2. Chemical safety assessment

Chemical safety assessment has not been conducted on the substance/product.

Section 16. Other information

Full text of H-Statements referred to under sections 2 and 3
H302 - Harmful if swallowed
H320 - Causes eye irritation

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