SAFETY DATA SHEET

GHEMSERVIGE

1. Identification

Product identifier	Diallylamine		
Other means of identification			
Item	N-11619		
Recommended use	For Laboratory Use Only		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/I	Distributor information		
Manufacturer			
Company name	Chem Service, Inc.		
Address	660 Tower Lane		
	West Chester, PA 19380 United States		
Telephone	Toll Free	800-452-9994	ł
	Direct	610-692-3026	6
Website	www.chemservice.com		
E-mail	info@chemservice.com		
Emergency phone number	Chemtrec US	800-424-9300	
	Chemtrec outside US	+1 703-527-3	587
2. Hazard(s) identification			
Physical hazards	Flammable liquids		Category 2
Health hazards	Acute toxicity, oral		Category 4
	Acute toxicity, dermal		Category 3
	Acute toxicity, inhalation		Category 3
	Skin corrosion/irritation		Category 1
	Serious eye damage/eye irritati	on	Category 1
Environmental hazards	Hazardous to the aquatic environ hazard	onment, acute	Category 2
	Hazardous to the aquatic enviro	onment,	Category 2
OSHA defined hazards	Not classified.		

Label elements

Signal word Hazard statement

Highly flammable liquid and vapor. Harmful if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic if inhaled. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Danger

Response	If swallowed: Call a poison center/doctor if you feel unwell. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see this label). Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

3. Composition/information on ingredients

Substances

Substances			
Chemical name	Common name and synonyms	CAS number	%
Diallylamine		124-02-7	100
4. First-aid measures			
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substan Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or othe proper respiratory medical device. Call a POISON CENTER or doctor/physician.		
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician of poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.		
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.		
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.		
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.		
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat s immediately. While flushing, remove clothes whi ambulance. Continue flushing during transport to immediately. While flushing, remove clothes whi ambulance. Continue flushing during transport to oxygen. Keep victim warm. Keep victim under ot	ch do not adhere to affected o hospital. Chemical burns: l ch do not adhere to affected o hospital. In case of shortne	l area. Call an Flush with water I area. Call an ess of breath, give
General information	Take off immediately all contaminated clothing. I medical advice immediately (show the label whe aware of the material(s) involved, and take preca clothing before reuse.	re possible). Ensure that me	edical personnel a
5. Fire-fighting measures			
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon		
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.		
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a so of ignition and flash back. During fire, gases hazardous to health may be formed.		
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full prote	ective clothing must be worr	in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fu so without risk.	imes. Move containers from	fire area if you car
Specific methods	Use standard firefighting procedures and consider	er the hazards of other invo	lved materials.
General fire hazards	Highly flammable liquid and vapor.		

6. Accidental release measures

0. Accidental release meas	Sures
Personal precautions, protective equipment and emergency procedures	Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits US. Workplace Environmental Exposure Level (WEEL) Guides Material Type Value TWA **Diallylamine (CAS** 3.97 mg/m3 124-02-7) 1 ppm No biological exposure limits noted for the ingredient(s). **Biological limit values Exposure guidelines US WEEL Guides: Skin designation** Diallylamine (CAS 124-02-7) Can be absorbed through the skin. Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air Appropriate engineering controls changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. Individual protection measures, such as personal protective equipment Eye/face protection Wear eye/face protection. Wear safety glasses with side shields (or goggles) and a face shield. Material name: Diallylamine SDS US

Skin protection Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Appearance	
Physical state	Liquid.
Form	Liquid
Color	Faint Yellow Green
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	-127.12 °F (-88.4 °C)
Initial boiling point and boiling range	231.8 °F (111 °C)
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	2.69 kPa at 25 °C
Vapor density	3.35
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	1.11
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.7888 g/cm3 estimated
Dynamic viscosity	14.6 mPa.s
Dynamic viscosity temperature	-126.85 °F (-88.25 °C)
Kinematic viscosity	18.509127 mm ² /s estimated
Molecular formula	C6-H11-N
Molecular weight	97.16 g/mol
Specific gravity	0.79 at 20 °C

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Peroxides. Phenols.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure Inhalation Toxic by inhalation. Toxic in contact with skin. Causes severe skin burns. Skin contact Eye contact Causes serious eye damage. Ingestion Causes digestive tract burns. Harmful if swallowed. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may Symptoms related to the include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including physical, chemical and blindness could result. toxicological characteristics Information on toxicological effects Acute toxicity Toxic by inhalation. Toxic in contact with skin. Harmful if swallowed. Expected to be a low hazard for usual industrial or commercial handling by trained personnel. Skin corrosion/irritation Causes severe skin burns and eye damage. Serious eye damage/eye Causes serious eye damage. irritation Respiratory or skin sensitization **Respiratory sensitization** Not available. Skin sensitization This product is not expected to cause skin sensitization. Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. This product is not expected to cause reproductive or developmental effects. **Reproductive toxicity** Specific target organ toxicity -Not classified. single exposure Not classified. Specific target organ toxicity repeated exposure Not available. Aspiration hazard **Chronic effects** Prolonged inhalation may be harmful.

12. Ecological information

otoxicity Toxic to aq		uatic life with long lasting effects. Accumulation in aquatic organisms is expected.	
Product		Species	Test Results
Diallylamine (CAS 12	4-02-7)		
Aquatic			
Fish	LC50	Goldfish (Carassius auratus)	7 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)

Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	
UN number	UN2359
UN proper shipping name	Diallylamine
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II), 8
Label(s)	3, 6.1, 8
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP1
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	243
ΙΑΤΑ	
UN number	UN2359
UN proper shipping name	Diallylamine
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II), 8
Packing group	
Environmental hazards	No.
ERG Code	3CP
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Allowed.
aircraft	
Cargo aircraft only	Allowed.
IMDG	
UN number	UN2359
UN proper shipping name	DIALLYLAMINE
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II), 8
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-C
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
SADA 202 Extremely bezard	5

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Yes chemical

SARA 313 (TRI reporting) Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated. (SDWA)

US state regulations

US - New Jersey RTK - Substances: Listed substance

Diallylamine (CAS 124-02-7)

- US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.
- US. Massachusetts RTK Substance List
 - Not regulated.
- US. New Jersey Worker and Community Right-to-Know Act
 - Not regulated.
- US. Pennsylvania RTK Hazardous Substances
 - Not regulated.
- US. Pennsylvania Worker and Community Right-to-Know Law
 - Not listed.
- US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	01-15-2015
Revision date	11-28-2015
Version #	02

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

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