

SAFETY DATA SHEET



Invisible Hardener

Section 1. Identification

- GHS product identifier** : Invisible Hardener
- Chemical name** : Reaction mass of 2-ethyl-2-[[[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl]butyl 3-[2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl]butoxy]propanoate
- CAS number** : Not available.
- Other means of identification** : Not available.
- Product use** : Wood surfaces. Indoor use.
- Supplier's details** : WOCA USA
2670 North Berkeley Lake Road, Suite 7
Duluth, Georgia 30096
U.S.A.
TEL +1 800-242-8160
- e-mail address of person responsible for this SDS** : info@ttwoodcare.com
- Emergency telephone number (with hours of operation)** : CHEMTREC: 1-800-424-9300 (24 hours a day/7 days per week)

Section 2. Hazards identification

- OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
- Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 4
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) (oral) - Category 2

GHS label elements

Hazard pictograms**Signal word**

: Danger

Hazard statements

: Harmful if swallowed.
Causes serious eye damage.
May cause an allergic skin reaction.
Suspected of causing genetic defects.
May cause damage to organs through prolonged or repeated exposure if swallowed. (kidneys)

Precautionary statements

Section 2. Hazards identification

- Prevention** : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Do not breathe vapor.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
- Response** : Get medical attention if you feel unwell.
IF exposed or concerned: Get medical attention.
IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
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 or physician.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Substance
- Chemical name** : Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy]methyl)butyl 3-[2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy]methyl)butoxy]propanoate
- Other means of identification** : Not available.

CAS number/other identifiers

- CAS number** : Not available.

Ingredient name	%	CAS number
Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy]methyl)butyl 3-[2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy]methyl)butoxy]propanoate	100	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Get medical attention.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain

Section 4. First aid measures

an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

- Skin contact** : Flush contaminated skin with plenty of water. Do NOT use solvents or thinners. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : SMALL FIRE: Use dry chemical or CO₂.
Use an extinguishing agent suitable for the surrounding fire.
LARGE FIRE: Use alcohol-resistant foam or water spray or fog.
- Unsuitable extinguishing media** : Do not use water jet.

Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Apply water from a safe distance to cool container and protect surrounding area. Collect contaminated fire-fighting water separately. It must not enter the sewage system.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.
See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Solvents should be avoided. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Solvents should be avoided. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store between the following temperatures: 5 to 40°C (41 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy]methyl)butyl 3-[2,2-bis([[3-(2-methylaziridin-1-yl)propanoyl]oxy]methyl)butoxy]propanoate	None.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommended: nitrile rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Ensure an MSHA/NIOSH-approved respirator or equivalent is used.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Yellow. [Light]
- Odor** : Amine-like.
- Odor threshold** : Not available.
- pH** : 7.5 to 8.0
- Melting point** : -58°C (-72.4°F)
- Boiling point** : 243.3 to 244.3°C (469.9 to 471.7°F)
- Flash point** : Closed cup: 253°C (487.4°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : <0.01 kPa (0.075006168 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : 1.07 to 1.08
- Density** : 1.07 to 1.08 g/cm³
- Solubility** : Not available.
- Solubility in water** : Soluble.
- Partition coefficient: n-octanol/water** : 1.4
- Auto-ignition temperature** : 345°C (653°F)
- Decomposition temperature** : >175°C (>347°F)
- Viscosity** : Kinematic (room temperature): 1.85 cm²/s (185 cSt)

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Keep away from heat and direct sunlight. May develop pressure.
- Incompatible materials** : Reactive or incompatible with the following materials:
strong acids
strong oxidizing materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Reaction mass of 2-ethyl-2-[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butyl 3-[2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butoxy]propanoate	LD50 Oral	Rat	2000 mg/kg bw	-

Conclusion/Summary : Harmful if swallowed.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Reaction mass of 2-ethyl-2-[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butyl 3-[2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butoxy]propanoate	Skin - Erythema/Eschar	Rabbit	0.7	4 hours	-
	Eyes - Iris lesion	Rabbit	1.1	24 to 72 hours 0.1 mL	-
	Eyes - Redness of the conjunctivae	Rabbit	2.8	24 to 72 hours 0.1 mL	-

Conclusion/Summary

Eyes : Causes serious eye damage.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Reaction mass of 2-ethyl-2-[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butyl 3-[2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butoxy]propanoate	skin	Mammal - species unspecified	Sensitizing

Conclusion/Summary

Skin : May cause an allergic skin reaction.

Mutagenicity

Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
Reaction mass of 2-ethyl-2-[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butyl 3-[2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl]butoxy]propanoate	OECD 471 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Positive
	OECD 473 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Positive
	OECD 474 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Positive

Conclusion/Summary : Suspected of causing genetic defects.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Reaction mass of 2-ethyl-2-[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butyl 3-[2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl]butoxy]propanoate	Category 2	Oral	kidneys

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.

Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : May cause damage to organs through prolonged or repeated exposure if swallowed. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : Suspected of causing genetic defects.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Reaction mass of 2-ethyl-2-[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl)butyl 3-[2,2-bis([3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl]butoxy]propanoate	Acute EC50 3.8 mg/l Fresh water	Algae	72 hours
	Acute EC50 5.5 mg/l Fresh water	Algae	72 hours
	Acute EC50 81 mg/l Fresh water	Daphnia - Daphnia Magna	48 hours

- Conclusion/Summary** : Not available.

Section 12. Ecological information

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
bis(isopropyl)naphthalene	6.081	1800 to 6400	high
(2-methoxymethylethoxy) propanol	0.004	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN3082	Not determined.	Not determined.	UN3082	UN3082	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl] methyl] propane-1,3-diyl bis (2-methylaziridine-1-propionate) and 2,2-bis({[3-(2-methylaziridin-1-yl)propanoyl] oxy}methyl) butyl 3-[2,2-bis ({[3-(2-methylaziridin-	-	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl] methyl] propane-1,3-diyl bis (2-methylaziridine-1-propionate) and 2,2-bis({[3-(2-methylaziridin-1-yl)propanoyl] oxy}methyl) butyl 3-[2,2-bis ({[3-(2-methylaziridin-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl] methyl] propane-1,3-diyl bis (2-methylaziridine-1-propionate) and 2,2-bis({[3-(2-methylaziridin-1-yl)propanoyl] oxy}methyl) butyl 3-[2,2-bis ({[3-(2-methylaziridin-	Environmentally hazardous substance, liquid, n.o.s. (Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl] methyl] propane-1,3-diyl bis (2-methylaziridine-1-propionate) and 2,2-bis({[3-(2-methylaziridin-1-yl)propanoyl] oxy}methyl) butyl 3-[2,2-bis ({[3-(2-methylaziridin-

Section 14. Transport information

	1-yl)propanoyl]oxy)methyl)butoxy]propanoate)			1-yl)propanoyl]oxy)methyl)butoxy]propanoate)	1-yl)propanoyl]oxy)methyl)butoxy]propanoate)	1-yl)propanoyl]oxy)methyl)butoxy]propanoate)
Transport hazard class(es)	9	-	-	9	9	9
Label						
Packing group	III	-	-	III	III	III
Environmental hazards	Yes.	-	-	Yes.	Marine Pollutant: Yes	Yes.

Additional information

DOT Classification

: Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. This product is not regulated as a hazardous material when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

Limited quantity Yes.

Packaging instruction Exceptions: 155. Non-bulk: 203. Bulk: 241.

Special provisions 8, 146, 173, 335, IB3, T4, TP1, TP29

ADR/RID

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Hazard identification number 90

Limited quantity 5 L

Special provisions 274, 335, 601, 375

IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Emergency schedules F-A, S-F

Special provisions 274, 335, 969

IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y964.

Special provisions A97, A158, A197

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : ACUTE TOXICITY (oral) - Category 4
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) (oral) - Category 2

Composition/information on ingredients

Name	%	Classification
Reaction mass of 2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl]methyl]propane-1,3-diyl bis(2-methylaziridine-1-propionate) and 2,2-bis({[3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl}butyl 3-[2,2-bis({[3-(2-methylaziridin-1-yl)propanoyl]oxy)methyl}butoxy]propanoate	100	ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) (oral) - Category 2

State regulations

Massachusetts : This material is not listed.

New York : This material is not listed.

New Jersey : This material is not listed.

Pennsylvania : This material is not listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 15. Regulatory information

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

United States : All components are listed or exempted.

Section 16. Other information

[National Fire Protection Association \(U.S.A.\)](#)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

[Procedure used to derive the classification](#)

Classification	Justification
ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) (oral) - Category 2	On basis of test data Expert judgment On basis of test data On basis of test data Expert judgment

[History](#)

Date of printing : 04/11/2019

Date of issue/Date of revision : 04/11/2019

Date of previous issue : No previous validation

Version : 1

Key to abbreviations : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
DOT = Department of Transportation
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SGG = Segregation Group
TDG = Transportation of Dangerous Goods
UN = United Nations

Section 16. Other information

References : Not available.

✔ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.