

SAFETY DATA SHEET

IMMULITE® 2000 Growth Hormone (hGH)

SIEMENS
Healthineers 

SDS no.:

L2KGRH2

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

1.1 Product identifier

Product name : IMMULITE® 2000 Growth Hormone (hGH)
Product code : L2KGRH2, 10381451

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

Identified uses GH Reagent Wedge Diagnostic agents.
 GH Adjustors Diagnostic agents.

Restrictions on use For professional users only.

Supplier : Siemens Healthcare Diagnostics Limited
 Park View,
 Watchmoor Park,
 Camberley,
 Surrey,
 GU15 3YL
 United Kingdom

Phone: +44 (0) 345 600 1955

e-mail address of person responsible for this SDS : dx.msds.healthcare@siemens-healthineers.com

1.4 Emergency telephone number

CHEMTREC: +44 20 3807 3798

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : GH Reagent Wedge Mixture
 GH Adjustors Mixture

Classification according to UK CLP/GHS

GH Reagent Wedge

Skin Sens. 1, H317

GH Adjustors

Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms

:



Signal word

: GH Reagent Wedge
 GH Adjustors

Warning
 No signal word.

SECTION 2: Hazards identification

Hazard statements	: GH Reagent Wedge GH Adjustors	H317 - May cause an allergic skin reaction. H412 - Harmful to aquatic life with long lasting effects.
<u>Precautionary statements</u>		
Prevention	: GH Reagent Wedge GH Adjustors	P280 - Wear protective gloves/protective clothing/eye protection/face protection. P273 - Avoid release to the environment.
Response	: GH Reagent Wedge GH Adjustors	P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention. P362 + P364 - Take off contaminated clothing and wash it before reuse. Not applicable.
Storage	: GH Reagent Wedge GH Adjustors	Not applicable. Not applicable.
Disposal	: GH Reagent Wedge GH Adjustors	Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: GH Reagent Wedge GH Adjustors	Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: GH Reagent Wedge GH Adjustors	Not applicable. Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: GH Reagent Wedge GH Adjustors	This mixture does not contain any substances that are assessed to be a PBT or a vPvB. This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: GH Reagent Wedge GH Adjustors	None known. None known.
Additional information	: Potentially biohazardous material. Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.	

SECTION 3: Composition/information on ingredients

3.1 Substances		: GH Reagent Wedge GH Adjustors	Mixture Mixture			
Product/ingredient name	Identifiers	%	Classification	Type		
GH Reagent Wedge aminocaproic acid	EC: 200-469-3 CAS: 60-32-2	≤3	Eye Irrit. 2, H319	[1]		
3(2H)-Isothiazolone, 2-methyl-	EC: 220-239-6 CAS: 2682-20-4	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318	[1]		
Date of issue/Date of revision		: 12/13/2022	Date of previous issue	: No previous validation	Version : 1	2/18

SECTION 3: Composition/information on ingredients

zinc chloride	EC: 231-592-0 CAS: 7646-85-7 Index: 030-003-00-2	<0.01	Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) EUH071 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1] [2]
GH Adjustors sodium azide	EC: 247-852-1 CAS: 26628-22-8 Index: 011-004-00-7	<1	Acute Tox. 2, H300 Acute Tox. 1, H310 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) EUH032 See Section 16 for the full text of the H statements declared above.	[1] [2]

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

SECTION 4: First aid measures**4.1 Description of first aid measures****Eye contact** : GH Reagent Wedge

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 10 minutes. Get medical attention if irritation occurs.

GH Adjustors

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : GH Reagent Wedge

Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The

SECTION 4: First aid measures

	GH Adjustors	exposed person may need to be kept under medical surveillance for 48 hours. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin contact	: GH Reagent Wedge	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	GH Adjustors	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: GH Reagent Wedge	Wash out mouth with water. Remove dentures if any. 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. Get medical attention if adverse health effects persist or are severe. 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. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.
	GH Adjustors	
Protection of first-aiders	: GH Reagent Wedge	No action shall be taken involving any personal risk or without suitable training. 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.
	GH Adjustors	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	: GH Reagent Wedge GH Adjustors	No specific data. No specific data.
Inhalation	: GH Reagent Wedge GH Adjustors	No specific data. No specific data.

SECTION 4: First aid measures

Skin contact	: GH Reagent Wedge	Adverse symptoms may include the following: irritation redness
	GH Adjustors	No specific data.
Ingestion	: GH Reagent Wedge	No specific data.
	GH Adjustors	No specific data.
4.3 Indication of any immediate medical attention and special treatment needed		
Notes to physician	: GH Reagent Wedge	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	GH Adjustors	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: GH Reagent Wedge	No specific treatment.
	GH Adjustors	No specific treatment.
	GH Reagent Wedge	Not available.
	GH Adjustors	Not available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

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.

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**6.1 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

- For emergency responders** : If specialised 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".
- 6.2 Environmental precautions** : Avoid dispersal of spilt 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).
- 6.3 Methods and material for containment and cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the 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). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 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. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. 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.
- 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.

7.2 Conditions for safe storage, including any incompatibilities

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. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

Product/ingredient name	Exposure limit values
GH Reagent Wedge zinc chloride	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 2 mg/m ³ 15 minutes. Form: Fume TWA: 1 mg/m ³ 8 hours. Form: Fume
GH Adjustors sodium azide	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 0.3 mg/m ³ , (as NaN ₃) 15 minutes. TWA: 0.1 mg/m ³ , (as NaN ₃) 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
GH Reagent Wedge 3(2H)-Isothiazolone, 2-methyl- zinc chloride	DNEL	Long term Inhalation	0.021 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.021 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.027 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0.043 mg/m ³	General population	Local
	DNEL	Short term Inhalation	0.043 mg/m ³	Workers	Local
	DNEL	Short term Oral	0.053 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	8.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	8.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.25 mg/m ³	General population	Systemic
	DNEL	Long term Oral	16.7 µg/kg bw/day	General population	Systemic
GH Adjustors sodium azide	DNEL	Long term Dermal	16.7 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	29 µg/m ³	General population	Systemic
	DNEL	Long term Dermal	46.7 µg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.164 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0.164 mg/m ³	Workers	Systemic

PNECs

No PNECs available

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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: safety glasses with side-shields.

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.

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.

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.

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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: GH Reagent Wedge GH Adjustors	Liquid. Solid.
Colour	: GH Reagent Wedge GH Adjustors	Colourless. Off-white.
Odour	: GH Reagent Wedge GH Adjustors	Odourless. Odourless.
Odour threshold	: Not relevant/applicable due to nature of the product.	
Melting point/freezing point	: Not relevant/applicable due to nature of the product.	
Softening point	: Not relevant/applicable due to nature of the product.	
Sublimation temperature	: Not relevant/applicable due to nature of the product.	
Initial boiling point and boiling range	: GH Reagent Wedge GH Adjustors	Not available. Not available.

SECTION 9: Physical and chemical properties

Flammability (solid, gas)	: GH Reagent Wedge GH Adjustors	Not relevant/applicable due to nature of the product. Not relevant/applicable due to nature of the product.
Upper/lower flammability or explosive limits	: GH Reagent Wedge GH Adjustors	Not available. Not applicable.
Flash point	: GH Reagent Wedge GH Adjustors	[Product does not sustain combustion.] [Product does not sustain combustion.]
Auto-ignition temperature	:	

Ingredient name	°C	°F	Method
GH Reagent Wedge magnesium di(acetate)	310	590	EU A.16

Decomposition temperature	:	Not relevant/applicable due to nature of the product.
pH	: GH Reagent Wedge GH Adjustors	7.55 to 7.65 Not applicable.
Viscosity	: GH Reagent Wedge GH Adjustors	Not available. Not applicable.
Solubility(ies)	:	
Not available.		
Solubility in water	:	Not relevant/applicable due to nature of the product.
Miscible with water	:	Not relevant/applicable due to nature of the product.
Partition coefficient: n-octanol/ water	:	Not relevant/applicable due to nature of the product.
Vapour pressure	:	

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
GH Reagent Wedge water	23.8	3.2				

Evaporation rate	:	Not relevant/applicable due to nature of the product.
Relative density	: GH Reagent Wedge GH Adjustors	1 Not available.
Density	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Vapour density	: GH Reagent Wedge GH Adjustors	Not available. Not applicable.
Explosive properties	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Oxidising properties	: GH Reagent Wedge GH Adjustors	Not available. Not available.

Particle characteristics

Median particle size	:	Not applicable.
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9.2 Other information

Fire point	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Burning time	:	Not relevant/applicable due to nature of the product.
Fundamental burning velocity	:	Not relevant/applicable due to nature of the product.
Burning rate	:	Not relevant/applicable due to nature of the product.
SADT	:	Not relevant/applicable due to nature of the product.
SAPT	:	Not relevant/applicable due to nature of the product.
Heat of reaction	:	Not relevant/applicable due to nature of the product.

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SECTION 9: Physical and chemical properties

Heat of combustion : Not relevant/applicable due to nature of the product.
Flow time (ISO 2431) : Not relevant/applicable due to nature of the product.
Molecular weight : Not relevant/applicable due to nature of the product.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
GH Reagent Wedge zinc chloride	LD50 Oral	Rat	350 mg/kg	-
GH Adjustors sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -

Conclusion/Summary : GH Reagent Wedge Not available.
 GH Adjustors Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
GH Reagent Wedge 3(2H)-Isothiazolone, 2-methyl-zinc chloride	100 350	300 N/A	N/A N/A	0.5 N/A	N/A N/A
GH Adjustors GH Adjustors sodium azide	8181.8 27	6060.6 20	N/A N/A	N/A N/A	N/A N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
GH Reagent Wedge aminocaproic acid	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
zinc chloride	Skin - Severe irritant	Rabbit	-	120 hours 1 %	-

Conclusion/Summary

SECTION 11: Toxicological information

Skin	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Eyes	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Respiratory	: GH Reagent Wedge GH Adjustors	Not available. Not available.

Sensitisation

Conclusion/Summary

Skin	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Respiratory	: GH Reagent Wedge GH Adjustors	Not available. Not available.

Mutagenicity

Conclusion/Summary	: GH Reagent Wedge GH Adjustors	Not available. Not available.
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Carcinogenicity

Conclusion/Summary	: GH Reagent Wedge GH Adjustors	Not available. Not available.
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Reproductive toxicity

Conclusion/Summary	: GH Reagent Wedge GH Adjustors	Not available. Not available.
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Teratogenicity

Conclusion/Summary	: GH Reagent Wedge GH Adjustors	Not available. Not available.
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Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
GH Reagent Wedge zinc chloride	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	: GH Reagent Wedge GH Adjustors	Not available. Not available.
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Potential acute health effects

Eye contact	: GH Reagent Wedge GH Adjustors	No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: GH Reagent Wedge GH Adjustors	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: GH Reagent Wedge GH Adjustors	May cause an allergic skin reaction. No known significant effects or critical hazards.
Ingestion	: GH Reagent Wedge GH Adjustors	No known significant effects or critical hazards. No known significant effects or critical hazards.

SECTION 11: Toxicological information**Symptoms related to the physical, chemical and toxicological characteristics**

Eye contact	: GH Reagent Wedge GH Adjustors	No specific data. No specific data.
Inhalation	: GH Reagent Wedge GH Adjustors	No specific data. No specific data.
Skin contact	: GH Reagent Wedge GH Adjustors	Adverse symptoms may include the following: irritation redness No specific data.
Ingestion	: GH Reagent Wedge GH Adjustors	No specific data. No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Short term exposure**

Potential immediate effects	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Potential delayed effects	: GH Reagent Wedge GH Adjustors	Not available. Not available.

Long term exposure

Potential immediate effects	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Potential delayed effects	: GH Reagent Wedge GH Adjustors	Not available. Not available.

Potential chronic health effects

Not available.

Conclusion/Summary	: GH Reagent Wedge GH Adjustors	Not available. Not available.
General	: GH Reagent Wedge GH Adjustors	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. No known significant effects or critical hazards.
Carcinogenicity	: GH Reagent Wedge GH Adjustors	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: GH Reagent Wedge GH Adjustors	No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	: GH Reagent Wedge GH Adjustors	No known significant effects or critical hazards. No known significant effects or critical hazards.
Interactive effects	: GH Reagent Wedge GH Adjustors	Not available. Not available.

Toxicokinetics

Absorption	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Distribution	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Metabolism	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Elimination	: GH Reagent Wedge GH Adjustors	Not available. Not available.

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SECTION 11: Toxicological information

Other information : GH Reagent Wedge Not available.
 GH Adjustors Not available.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
GH Reagent Wedge 3(2H)-Isothiazolone, 2-methyl- zinc chloride	Acute EC50 0.18 ppm Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 0.07 ppm Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss	96 hours
	Acute EC50 34 µg/l Fresh water	Algae - Green algae - Chlorella vulgaris - Exponential growth phase	72 hours
	Acute EC50 26 µg/l Marine water	Algae - Diatom - Navicula incerta	96 hours
	Acute EC50 1.8 mg/l Fresh water	Aquatic plants - Lesser Duckweed - Lemna aequinoctialis	96 hours
	Acute EC50 100 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 49.99 µg/l Fresh water	Crustaceans - Water flea - Moina irrasa - Neonate	48 hours
	Acute LC50 0.027 mg/l Marine water	Fish - Sand Flounder - Limanda punctatissima - Pre-larvae	96 hours
	Chronic NOEC 20 µg/l Marine water	Algae - Green algae - Chlorella sp. - Exponential growth phase	72 hours
	Chronic NOEC 1000 µg/l Fresh water	Crustaceans - Red swamp crayfish - Procambarus clarkii - Intermolt	21 days
	Chronic NOEC 80 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days
	Chronic NOEC 31.5 µg/l Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss	30 days
GH Adjustors sodium azide	Acute EC50 9200 µg/l Marine water	Algae - Giant kelp - Macrocystis pyrifera	96 hours
	Acute EC50 6.4 mg/l Fresh water	Crustaceans - Water flea - Simocephalus serrulatus - Larvae	48 hours
	Acute EC50 4.2 mg/l Fresh water	Daphnia - Water flea - Daphnia pulex - Larvae	48 hours
	Acute LC50 0.68 mg/l Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
	Chronic NOEC 5600 µg/l Marine water	Algae - Giant kelp - Macrocystis pyrifera	96 hours

Conclusion/Summary : GH Reagent Wedge Not available.
 GH Adjustors Not available.

12.2 Persistence and degradability

Conclusion/Summary : GH Reagent Wedge Not available.
 GH Adjustors Not available.

12.3 Bioaccumulative potential

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SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
GH Reagent Wedge aminocaproic acid	-2.95	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc})	: GH Reagent Wedge GH Adjustors	Not available. Not available.
Mobility	: GH Reagent Wedge GH Adjustors	Not available. Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Methods of disposal	: The generation of waste should be avoided or minimised 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.
Hazardous waste	: The classification of the product may meet the criteria for a hazardous waste. Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

Packaging

Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information**ADR/RID**

14.1 UN number	GH Reagent Wedge GH Adjustors	Not regulated. Not regulated.
14.2 UN proper shipping name	GH Reagent Wedge GH Adjustors	- -
14.3 Transport hazard class(es)	GH Reagent Wedge GH Adjustors	- -
14.4 Packing group	GH Reagent Wedge GH Adjustors	- -
14.5 Environmental hazards	GH Reagent Wedge GH Adjustors	No. No.

SECTION 14: Transport information

Additional information	GH Reagent Wedge	-
	GH Adjustors	-

ADN

14.1 UN number	GH Reagent Wedge	Not regulated.
	GH Adjustors	Not regulated.

14.2 UN proper shipping name	GH Reagent Wedge	-
	GH Adjustors	-

14.3 Transport hazard class(es)	GH Reagent Wedge	-
	GH Adjustors	-

14.4 Packing group	GH Reagent Wedge	-
	GH Adjustors	-

14.5 Environmental hazards	GH Reagent Wedge	No.
	GH Adjustors	No.

Additional information	GH Reagent Wedge	-
	GH Adjustors	-

IMDG

14.1 UN number	GH Reagent Wedge	Not regulated.
	GH Adjustors	Not regulated.

14.2 UN proper shipping name	GH Reagent Wedge	-
	GH Adjustors	-

14.3 Transport hazard class(es)	GH Reagent Wedge	-
	GH Adjustors	-

14.4 Packing group	GH Reagent Wedge	-
	GH Adjustors	-

14.5 Environmental hazards	GH Reagent Wedge	No.
	GH Adjustors	No.

Additional information	GH Reagent Wedge	-
	GH Adjustors	-

IATA

14.1 UN number	GH Reagent Wedge	Not regulated.
	GH Adjustors	Not regulated.

14.2 UN proper shipping name	GH Reagent Wedge	-
	GH Adjustors	-

14.3 Transport hazard class(es)	GH Reagent Wedge	-
	GH Adjustors	-

14.4 Packing group	GH Reagent Wedge	-
	GH Adjustors	-

14.5 Environmental hazards	GH Reagent Wedge	No.
	GH Adjustors	No.

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SECTION 14: Transport information

Additional information	GH Reagent Wedge	-
	GH Adjustors	-

14.6 Special precautions for user : GH Reagent Wedge

GH Adjustors

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 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.

14.7 Transport in bulk according to IMO instruments Not applicable.

SECTION 15: Regulatory information

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

UK (GB) /REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : GH Reagent Wedge
GH Adjustors

Not applicable.

Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air	: GH Reagent Wedge	Not listed
	GH Adjustors	Not listed

Industrial emissions (integrated pollution prevention and control) - Water	: GH Reagent Wedge	Not listed
	GH Adjustors	Not listed

International regulations

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SECTION 15: Regulatory information

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment : Not applicable.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = GB CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
GH Reagent Wedge Skin Sens. 1, H317	Calculation method
GH Adjustors Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

GH Reagent Wedge	
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.
GH Adjustors	
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H400	Very toxic to aquatic life.

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SECTION 16: Other information

H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

Full text of classifications

GH Reagent Wedge

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

GH Adjustors

Acute Tox. 1	ACUTE TOXICITY - Category 1
Acute Tox. 2	ACUTE TOXICITY - Category 2
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

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Notice to reader

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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.