SAFETY DATA SHEET

1. Identification

Product identifier **SHINGRIX PFS**

Other means of identification

Synonyms SHINGRIX PFS 0.5 mL * SHINGRIX PREFILLED SYRINGES (PFS) 0.5 mL * VACCINE FOR PREVENTION OF HERPES ZOSTER (SHINGLES) * VARICELLA ZOSTER VIRUS (VZV) gE/AS01B VACCINE * NDC 58160-849-43 * NDC 58160-849-52 (CARTON OF 10) * SHINGRIX, FORMULATED PRODUCT

Recommended use Medicinal Product.

This safety data sheet (SDS) has been prepared in accordance with workplace safety standards which require identification of all known hazards of the material regardless of potential risk. The information is intended for people handling the material in the workplace. Warnings included may not apply in all cases. Needs may vary depending upon the potential for exposure in the workplace. The SDS is not intended to provide information relevant to final use of the material for the purpose intended. Consumers/Patients should consult prescribing information/package insert/product label or consult their chemist or physician.

Recommended restrictions No other uses are advised.

Manufacturer/Importer/Supplier/Distributor information

COMPANY NAME GSK

Address: 410 Blackwell Street
Durham, NC, 27701

Telephone: +1-888-825-5249 (GSK General Inquiries)
+1-877-844-8872 (ViiV General Inquiries)

Email: msds@gsk.com

Website: www.gsk.com

EMERGENCY CONTACTS

3E GLOBAL INCIDENT RESPONSE

Telephone: +(1) 760 476 3971 (In country)
+(1) 760 476 3962 or +(1) 866 519 4752 (International)
24/7; multi-language response

Contract Number: 334878

2. Hazard(s) identification

Hazards for the product as sold

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Not available.

Response	Not available.
Storage	Not available.
Disposal	Not available.
Hazard(s) not otherwise classified (HNOC)	Caution - Pharmaceutical agent. See section 11 of the SDS for additional information on health hazards.
Supplemental information	21% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 21% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS No./Unique ID	%
SUCROSE	SUGAR CANE SUGAR BEET SUGAR CONFECTIONER'S SUGAR ALPHA-D-GLUCOPYRANOSIDE, BETA-D-FRUCTOFURANOSYL GRANULATED SUGAR SUCRALOX	57-50-1	20
SODIUM CHLORIDE	COMMON SALT ROCK SALT SODIUM MONOCHLORIDE SALT SEA SALT TABLE SALT SALT, WHITE CRYSTALS, SOLAR	7647-14-5	< 4.5
POTASSIUM PHOSPHATE MONOBASIC	POTASSIUM ACID PHOSPHATE POTASSIUM DIPHOSPHATE POTASSIUM BIPHOSPHATE POTASSIUM ORTHOPHOSPHATE MONOPOTASSIUM PHOSPHATE POTASSIUM DIHYDROGEN PHOSPHAT E POTASSIUM DIHYDROGEN ORTHOPHOSPHATE POTASSIUM PHOSPHATE, MONOBASIC	7778-77-0	< 0.6
CHOLESTEROL	CHOLEST-5-EN-3BETA-OL 5-CHOLESTEN-3BETA-OL CHOLESTERYL ALCOHOL CHOLESTERINE CHOLESTERIN 3BETA-CHOLEST-5-EN-3-OL CHOLEST-5-EN-3-OL (3BETA)- 5:6-CHOLESTEN-3BETA-OL	57-88-5	< 0.3

Chemical name	Common name and synonyms	CAS No./Unique ID	%
DISODIUM PHOSPHATE	DISODIUM HYDROGEN ORTHOPHOSPHATE SODIUM PHOSPHATE DIBASIC ANHYDROUS DISODIUM HYDROGEN PHOSPHATE PHOSPHORIC ACID, DISODIUM SALT SODIUM PHOSPHATE DIBASIC DIBASIC SODIUM PHOSPHATE DISODIUM MONOHYDROGEN PHOSPHATE DSP EXSICCATED SODIUM PHOSPHATE SODA PHOSPHATE DISODIUM PHOSPHORIC ACID SODIUM MONOHYDROGEN PHOSPHATE DISODIUM ACID ORTHOPHOSPHATE DISODIUM HYDROPHOSPHATE HYDROGEN DISODIUM PHOSPHATE DISODIUM HYDROGEN PHOSPHATE ANHYDROUS SODIUM PHOSPHATE DIBASIC DISODIUM PHOSPHATE TRISODIUM PHOSPHATE	7558-79-4	< 0.2
POTASSIUM PHOSPHATE DIBASIC	PHOSPHORIC ACID, DIPOTASSIUM SALT DIBASIC POTASSIUM PHOSPHATE DIPOTASSIUM HYDROGEN PHOSPHATE DIPOTASSIUM MONOHYDROGEN PHOSPHATE DIPOTASSIUM MONOPHOSPHATE DIPOTASSIUM ORTHOPHOSPHATE DIPOTASSIUM PHOSPHATE HYDROGEN DIPOTASSIUM PHOSPHATE POTASSIUM BIPHOSPHATE POTASSIUM MONOHYDROGEN PHOSPHATE POTASSIUM MONOPHOSPHATE DKP DIPOTASSIUM HYDROGENORTHOPHOSPHATE DIPOTASSIUM HYDROGEN ORTHOPHOSPHATE POTASSIUM PHOSPHATE, DIBASIC, ANHYDROUS POTASSIUM HYDROGEN ORTHOPHOSPHATE POTASSIUM HYDROGEN PHOSPHATE	7758-11-4	< 0.2
SORBITAN MONOOLEATE, ETHOXYLATED	POLYETHYLENE OXIDE SORBITAN MONO-OLEATE POLYOXYETHYLENE SORBITAN MONOOLEATE POLYOXYETHYLENE (20) SORBITAN MONO-OLEATE POLYOXYETHYLENE SORBITAN OLEATE POLYSORBATE 80 POLYSORBATE 80, U.S.P. SORBIMACROGOL OLEATE TWEEN 80 TWEEN 81 TWEEN 80 A POLYOXYETHYLENE SORBITAN MONOOLEATE (POLYSORBATE 80) POLYSORBATE 80, USP	9005-65-6	0.08

Chemical name	Common name and synonyms	CAS No./Unique ID	%
RECOMBINANT PROTEIN gE		Unassigned	0.05
QS-21	QS21 POWDER QUENCHED OR DETOXIFIED QS-21 (DQ) SAPONIN ISOLATED FROM THE BARK OF QUILLAJA SAPONARIA MOLINA TRE E-(28-{O-D-APIO-BETA-D-FURANOSYL-(1,3)-O-BETA-D-XYLOPYRANOSYL-(1,4)-O-6-DEOXY-ALPHA-L-MANNOPYRANOSYL)-(1,2)-4-O-[5-(5-ALPHA-L-ARABINOFURANOSYLOXY-3-HYDROXY-6-METHYL OCTANOYLO-XY)-3-HYDROXY-6-METHYLOCTANOYL]-6-DEOXY-BETA-D 30ßDGALACTOPYRANOSY (12) [ßDXYLOPYRANOSYL(13)] ßDGLUCURONOPYRANOSYLQUILAIC ACID 280ßDAPIOFURANOSYL (13) ßDXYLOPYRANOSYL (14) LRHAMNOPYRANOSYL(12) 3(50 LARABINOFURANOSYL 3,5DIHYDROXY6METHYLOCTANOYL) 3,5DIHYDROXY6METHYLOCTANOYL) ßDFUCOPYRAMOSIDE	141256-04-4	0.0062
PHOSPHATIDYL CHOLINE	Phospholipon 90 G	97281-47-5	0.0001
MONOPHOSPHORYL LIPID A (MPL ADJUVANT)	MONOPHOSPHORYL LIPID A (MPL ADJUVANT) FROM S MINNESOTA R595 MPL ACID MPL CRUDE MPL DETOXIFIED ENDOTOXIN PRODUCT CODE R-350 PRODUCT CODE R-351 MONOPHOSPHORYL LIPID A .ALPHA.-D-GLUCOPYRANOSE, 2-DEOXY-6-O-[2-DEOXY-2-[[(3R)-1-OXO-3-[(1-OXODODECYL)OXY]TETRADECYL] AMINO]-3-O-[(3R)-1-OXO-3-[(1-OXOTETR ADECYL)OXY]TETRADECYL]-4-O-PHOS PHONO-.BETA.-D-GLUCOPYRANOSYL]-2-[[(3R)-3-HYDROXY-1-OXOTETRA	88598-53-2	<0.0001
SODIUM HYDROXIDE	CAUSTIC SODA LYE SODIUM HYDRATE HIDROXIDO SODICO HIDRÓXIDO DE SÓDIO CAUSTIC SODA SOLUTION Caustic soda (as NaOH) Soda lye Soda, caustic	1310-73-2	<0.0001
Other components below reportable levels			<74.5

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. 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 discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

GSK

Components	Type	Value	Form
CHOLESTEROL (CAS 57-88-5)	8 HR TWA	3000 mcg/m3	
DISODIUM PHOSPHATE (CAS 7558-79-4)	8 HR TWA	5000 mcg/m3	
PHOSPHATIDYL CHOLINE (CAS 97281-47-5)	OHC	1	
POTASSIUM PHOSPHATE DIBASIC (CAS 7758-11-4)	8 HR TWA	5000 mcg/m3	
POTASSIUM PHOSPHATE MONOBASIC (CAS 7778-77-0)	OHC	1	>1000 - </=5000 mcg/m3
QS-21 (CAS 141256-04-4)	OHC	4	>1 - </=10 mcg/m3

GSK

Components	Type	Value	Form
SODIUM CHLORIDE (CAS 7647-14-5)	OHC	1	>1000 - </=5000 mcg/m3
SORBITAN MONOOLEATE, ETHOXYLATED (CAS 9005-65-6)	OHC	1	>1000 - </=5000 mcg/m3 PROVISIONAL
SUCROSE (CAS 57-50-1)	8 HR TWA	3000 mcg/m3	

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
SODIUM HYDROXIDE (CAS 1310-73-2)	PEL	2 mg/m3	
SUCROSE (CAS 57-50-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3
SUCROSE (CAS 57-50-1)	TWA	10 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value	Form
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3	
SUCROSE (CAS 57-50-1)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls General ventilation normally adequate.
An Exposure Control Approach (ECA) is established for operations involving this material based upon the OEL/Occupational Hazard Category and the outcome of a site- or operation-specific risk assessment.

GSK Exposure Control Band; OHC 4.

Individual protection measures, such as personal protective equipment

Eye/face protection Not normally needed. If contact is likely, safety glasses with side shields are recommended.

Skin protection

Hand protection Not normally needed. Wear appropriate chemical resistant gloves.

Other Not normally needed. Wear suitable protective clothing as protection against splashing or contamination.

Respiratory protection No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations 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. For advice on suitable monitoring methods, seek guidance from a qualified environment, health and safety professional.

9. Physical and chemical properties

Physical state Liquid.

Form Pre-filled syringe

Color colorless to pale brownish.

Odor Not available.

Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	Not available.
Flammability	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Flash point	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	Not available.
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Vapor pressure	Not available.
Density and/or relative density	Not available.
Vapor density	Not available.
Particle characteristics	Not available.
Other information	
Explosive properties	Not available.
Oxidizing properties	Not available.
Percent volatile	73.3 % estimated

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	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Not established.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed. Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort.

Information on toxicological effects

Acute toxicity	Not known.

Components	Species	Test Results
DISODIUM PHOSPHATE (CAS 7558-79-4)		
Acute		
Oral		
LD50	Rat	17 g/kg
MONOPHOSPHORYL LIPID A (MPL ADJUVANT) (CAS 88598-53-2)		
Acute		
Other		
LD	Rat	5 mg/kg Intra-peritoneal administration.
Subacute		
Other		
NOAEL	Rat	0.04 mg/kg/day, 7 Day Intravenous route
NOEL	Dog	0.006 mg/kg/day, 14 Day Intravenous route
PHOSPHATIDYL CHOLINE (CAS 97281-47-5)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg
POTASSIUM PHOSPHATE MONOBASIC (CAS 7778-77-0)		
Acute		
Dermal		
LD50	Rabbit	> 300 mg/kg, 24 Hours
Oral		
LD50	Mouse	1700 mg/kg
SODIUM CHLORIDE (CAS 7647-14-5)		
Acute		
Oral		
LD50	Rat	3000 mg/kg
SODIUM HYDROXIDE (CAS 1310-73-2)		
Acute		
Dermal		
LD50	Rabbit	1350 mg/kg
Oral		
LD50	Rat	104 - 340 mg/kg

Skin corrosion/irritation Due to partial or complete lack of data the classification is not possible.

Corrosivity

SODIUM HYDROXIDE	Literature search Result: Causes severe burns.

Serious eye damage/eye irritation Due to partial or complete lack of data the classification is not possible.

Eye

SODIUM HYDROXIDE	Literature search Result: Causes severe burns.
QS-21	Predicted Result: Pharmacological effect, inflammation.

Respiratory or skin sensitization Due to partial or complete lack of data the classification is not possible.

Respiratory sensitization Due to partial or complete lack of data the classification is not possible.

Skin sensitization Due to partial or complete lack of data the classification is not possible.

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Mutagenicity

MONOPHOSPHORYL LIPID A (MPL ADJUVANT)	Ames Result: Negative
QS-21	Ames Result: Negative
MONOPHOSPHORYL LIPID A (MPL ADJUVANT)	Chromosomal Aberration Assay In Vitro Result: Negative
QS-21	In vivo Micronucleus Result: Negative Species: Rat
MONOPHOSPHORYL LIPID A (MPL ADJUVANT)	In vivo Micronucleus, Intra-muscular administration. Result: Negative
QS-21	Mouse lymphoma cell (L5178Y TK) Assay Result: Negative

Carcinogenicity Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity

CHOLESTEROL (CAS 57-88-5)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Reproductivity

MONOPHOSPHORYL LIPID A (MPL ADJUVANT)	Embryo-foetal development, sub-cutaneous administration. Result: No developmental toxicity. Species: Rabbit Embryo-foetal development, sub-cutaneous administration. Result: No developmental toxicity. Species: Rat
QS-21	Pre- and Post-natal development Result: Negative Species: Rabbit Pre- and Post-natal development Result: Negative Species: Rat
MONOPHOSPHORYL LIPID A (MPL ADJUVANT)	Pre- and Post-natal development, sub-cutaneous administration. Result: No developmental toxicity. Species: Rat

Specific target organ toxicity - single exposure Not assigned. Due to partial or complete lack of data the classification is not possible.

QS-21	Result: Respiratory irritant

Specific target organ toxicity - repeated exposure Not assigned. Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Chronic effects Prolonged inhalation may be harmful.

Further information Caution - Pharmaceutical agent. Occupational exposure to the substance or mixture may cause adverse effects.

MONOPHOSPHORYL LIPID A (MPL ADJUVANT)	Result: Respiratory irritation. Species: Rat

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
DISODIUM PHOSPHATE (CAS 7558-79-4)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	252 mg/l
SODIUM CHLORIDE (CAS 7647-14-5)			
Aquatic			
Acute			
Algae	EC50	Algae (Nitscheria linearis)	2430 mg/l, 5 days
Crustacea	EC50	Water flea (Daphnia magna)	3310 mg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Juvenile Lepomis macrochirus)	1295 mg/l, 96 hours Static test
		Fathead minnow (Juvenile Pimephales promelas)	6390 mg/l, 96 hours Static test
		Goldfish (Adult Carassius auratus)	7000 mg/l, 96 hours
		Mosquito fish (Adult Gambusia affinis)	17550 mg/l, 96 hours Static test
SODIUM HYDROXIDE (CAS 1310-73-2)			
Aquatic			
Acute			
Fish	EC50	Mosquito fish (Adult Gambusia affinis)	125 mg/l, 96 hours Static test
		Rainbow trout (Adult Oncorhyncus mykiss)	45.4 mg/l, 96 hours Static test

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

Biodegradability

Percent degradation (Aerobic biodegradation-inherent)

SUCROSE	69 % BOD5

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

SUCROSE	-3

Mobility in soil No data available.

Mobility in general Not available.

Volatility

Henry's law

SUCROSE	< 0 atm m^3/mol Estimated

Other adverse effects Not established.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

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.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as a dangerous good.

Read safety instructions, SDS and emergency procedures before handling.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to IMO instruments Not applicable.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

DISODIUM PHOSPHATE (CAS 7558-79-4)
SODIUM HYDROXIDE (CAS 1310-73-2)

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

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 (SDWA) Not regulated.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

SODIUM HYDROXIDE (CAS 1310-73-2)

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. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*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 04-03-2025

Revision date 12-09-2025

Version # 03

HMIS® ratings
Health: 1
Flammability: 0
Physical hazard: 0

NFPA ratings
Health: 1
Flammability: 0
Instability: 0

References GSK Hazard Determination.

Disclaimer The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.

Revision information
Product and Company Identification: Synonyms
Composition / Information on Ingredients: Disclosure Overrides
Exposure Controls / Personal Protection: OELs
Exposure controls/personal protection: Appropriate engineering controls
Toxicological information: Specific target organ toxicity - repeated exposure