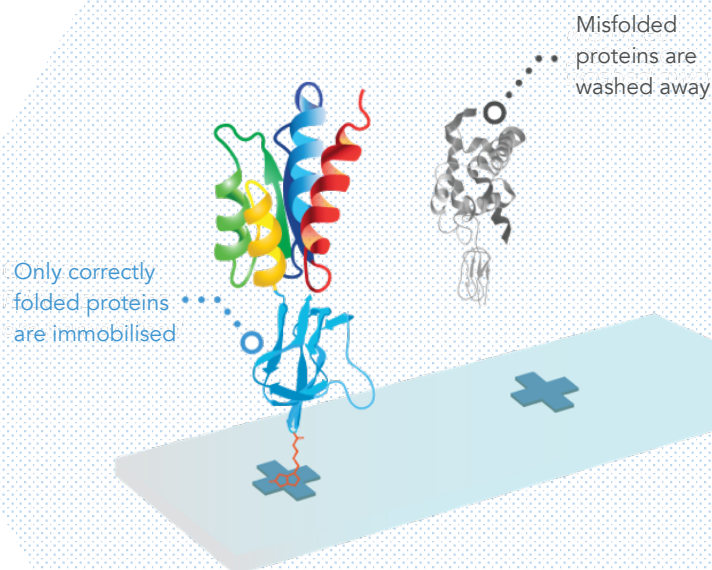


OncoREX™ p53 AxCESS Array

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH), Annex II



KREX

World's only technology
that consistently produces full-length, correctly folded, functional proteins

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1	Product identifier	
	Trade name Reference no.	Sengenics OncoREX p53 AxCESS Arrays 40050
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Identified use(s)	Analytical reagent. For research use only
1.3	Details of the supplier of the safety data sheet	
	Company identification Telephone E-mail	Sengenics Corporation Pte Ltd Floor M, Tower A, Plaza Zurich Jalan Gelenggang 50490 Bukit Damansara Kuala Lumpur MALAYSIA +603-27001364 enquiries@sengenics.com
1.4	Emergency telephone number	
	Emergency Phone No.	

SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification of the substance or mixture Regulation (EC) No. 1272/2008 (CLP)	Not classified as hazardous
	Directive 67/548/EEC & Directive 1999/45/EC	Not classified as dangerous for supply/use
	OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012)/GHS	Not classified as hazardous
2.2	Label elements	No measures required
2.3	Other hazards	None anticipated

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1	Mixtures	<p>Description: Microarray slide containing immobilised recombinant proteins immersed in a glycerol water mixture solution</p> <p>Dangerous components: EC Classification No. 1272/2008 / GHS</p> <table border="1" data-bbox="461 568 1447 732"> <thead> <tr> <th>Hazardous ingredient(s)</th> <th>%W/W</th> <th>EC No.</th> <th>CAS No.</th> <th>Classification code: Hazard statement(s)</th> </tr> </thead> <tbody> <tr> <td>Glycerol</td> <td>60</td> <td>200-289-5</td> <td>56-81-5</td> <td>-</td> </tr> </tbody> </table> <p>EC Classification No. 67/548/EEC</p> <table border="1" data-bbox="461 822 1447 985"> <thead> <tr> <th>Hazardous ingredient(s)</th> <th>%W/W</th> <th>EC No.</th> <th>CAS No.</th> <th>EC Classification and Risk Phrases</th> </tr> </thead> <tbody> <tr> <td>Glycerol</td> <td>60</td> <td>200-289-5</td> <td>56-81-5</td> <td>-</td> </tr> </tbody> </table>	Hazardous ingredient(s)	%W/W	EC No.	CAS No.	Classification code: Hazard statement(s)	Glycerol	60	200-289-5	56-81-5	-	Hazardous ingredient(s)	%W/W	EC No.	CAS No.	EC Classification and Risk Phrases	Glycerol	60	200-289-5	56-81-5	-
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3.2	Additional information	<p>See Section 8: Occupational Exposure Limits</p> <p>The constructs used in production do not have the necessary elements required for mammalian cell expression, nor do they have any recognised method of being transferred to and expressed within a mammalian cell from its current host.</p> <p>Expressed proteins are too large to be absorbed through the gut wall intact and are too large to passively diffuse through cell membranes.</p> <p>The organisms used in production are not associated with any environmentally damaging effects. The overall risk of causing harm to the environment is effectively zero.</p> <p>The risk to human health and environmental safety with respect to the above materials is extremely small.</p>																				

SECTION 4: FIRST AID MEASURES



4.1	Description of first aid measures	
	Inhalation	Supply fresh air; consult doctor in case of complaint
	Skin Contact	Wash skin with soap and water. Remove contaminated clothing and wash clothing before reuse
	Eye Contact	Rinse cautiously with water for several minutes. Consult a doctor in case of complaint
	Ingestion	Wash out mouth with water. Consult a doctor in case of complaint
4.2	Most important symptoms and effects, both acute and delayed	None anticipated
4.3	Indication of the immediate medical attention and special treatment needed	None known

SECTION 5: FIRE-FIGHTING MEASURES

5.1	Extinguishing media	
	Suitable extinguishing media	CO ₂ , powder or water spray. Fight larger fires with water spray or alcohol resistant foam
5.2	Special hazards arising from the substance or mixture	In case of fire, the following can be released: Carbon oxides (CO _x), nitrogen oxides (NO _x), sulphur oxides (SO _x)
5.3	Advice for fire-fighters	Use fire-extinguishing methods suitable to surrounding conditions. Wear full protective suit and self-contained breathing apparatus (SCBA) when extinguishing fires

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures	Refer to Section 8 for protective measures when handling the spillage
6.2	Environmental precautions	No special requirements
6.3	Methods and material for containment and cleaning up	Absorb with liquid-binding material (paper towelling, sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to Section 13. Rinse off area with water
6.4	Reference to other sections	8, 13

SECTION 7: HANDLING AND STORAGE

7.1	Precautions for safe handling	<ul style="list-style-type: none"> ▪ Avoid contact with the eyes, skin and mucous membranes ▪ Keep out of reach of children ▪ Wash hands before breaks and after work
7.2	Conditions for safe storage, including any incompatibilities	Store in the original container at -20°C
7.3	Specific end use(s)	Use as per instructions for use. For professional use only

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	Control parameters		
8.1.1	Occupational Exposure Limits		
	SUBSTANCE.	CAS No.	Source
	Glycerol (mist)	56-81-5	UK WEL / Irl OELV
			LTEL (8 hr TWA mg/m ³)
			10

8.2	Exposure controls	
8.2.1	Appropriate engineering controls	Not relevant for this material
8.2.2	Personal protection equipment	
	Eye/face protection	Safety glasses recommended (EN166)
	Hand protection	Disposable gloves (EN374)
	Material of gloves	Latex / natural rubber, Nitrile rubber
	Penetration time of glove material	Gloves resistance is not critical when the product is handled according to the instructions for use.
	Body protection	Laboratory coat
	Respiratory protection	Not normally required
8.2.3	Environmental Exposure Controls	No special measures are required

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information on basic physical and chemical properties	
	Appearance	Pair of clear glass slides immersed in a clear liquid
	Colour	Colourless
	Odour	Pungent
	Odour threshold (ppm)	Not determined
	pH (Value)	7.6
	Melting point (°C)/Freezing point (°C)	Not determined
	Boiling point/boiling range (°C)	Not determined
	Flash point (°C)	Not determined
	Evaporation rate (BA = 1)	Not determined
	Flammability (solid, gas)	Not applicable
	Explosive limit ranges	Not applicable
	Vapour Pressure (mm Hg)	Not determined
	Vapour Density (Air=1)	Not determined
	Density (g/ml)	Not determined
	Solubility (Water)	Soluble
	Solubility (Other)	Not determined
	Partition Coefficient (n-Octanol/water)	Not determined
	Auto Ignition Temperature (°C)	Not determined
	Decomposition Temperature (°C)	Not determined
	Viscosity (mPa.s)	Not determined
	Explosive properties	Not explosive
	Oxidising properties	Not oxidising
9.2	Other information	Not available

SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	None known
10.2	Chemical stability	The product is stable in accordance with the recommended storage conditions
10.3	Possibility of hazardous reactions	None known. Hazardous polymerisation will not occur
10.4	Conditions to avoid	None
10.5	Incompatible materials	None known
10.6	Hazardous decomposition product(s)	None known

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
11.1.2	Mixtures	
	Acute toxicity	Based upon the available data, the classification criteria are not met
	Irritation	Based upon the available data, the classification criteria are not met
	Corrosivity	Based upon the available data, the classification criteria are not met
	Sensitisation	Based upon the available data, the classification criteria are not met
	Repeated dose toxicity	Based upon the available data, the classification criteria are not met
	Carcinogenicity	Based upon the available data, the classification criteria are not met
	Mutagenicity	Based upon the available data, the classification criteria are not met
	Toxicity for reproduction	Based upon the available data, the classification criteria are not met
	STOT-single exposure	Based upon the available data, the classification criteria are not met
	STOT-repeated exposure	Based upon the available data, the classification criteria are not met
	Aspiration hazard	Based upon the available data, the classification criteria are not met
11.2	Other information	Not applicable

SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	The product does not contain significant quantities of ingredients that are environmentally toxic
12.2	Persistence and degradability	The organic components are substantially biodegradable
12.3	Bioaccumulative potential	None anticipated
12.4	Mobility in soil	The product is predicted to have high mobility in soil
12.5	Results of PBT and vPvB assessment	Not applicable
12.6	Other adverse effects	Not applicable

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods Product	Chemical residues and remains should be routinely handled as special waste. Used arrays should be treated as potentially infectious material. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.
	European waste catalogue	180107 & 180103*
	Packaging	<ul style="list-style-type: none"> ▪ Disposal should be in accordance with local, state or national legislation ▪ Contaminated packaging must be disposed of in the same manner as the product ▪ Non-contaminated packaging materials may be recycled ▪ Contact your local service providers for further information

SECTION 14: TRANSPORT INFORMATION

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard class(es)	Not classified as dangerous for transport
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable

SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	Regulation (EC) No. 1907/2006 (REACH), Annex II OSHA Hazard Communication Standard 29 CFR 1910.1200
	Carcinogen listings	
	IARC	None of the ingredients is listed
	NTP	None of the ingredients is listed
	ACGIH	None of the ingredients is listed
	OSHA	None of the ingredients is listed
	EPA	None of the ingredients is listed
	Californian Proposition 65	
Chemicals known to cause cancer	None of the ingredients is listed	
Chemicals known to cause reproductive toxicity	None of the ingredients is listed	
SARA		
Section 355 (extremely hazardous substances)	None of the ingredients is listed	
Section 313 (specific toxic chemical listings)	None of the ingredients is listed	
15.2	Chemical safety assessment	Not applicable

SECTION 16: OTHER INFORMATION

LEGEND

STOT Specific Target Organ Toxicity

References Raw material safety data sheets

Additional information

Prepared by: **Sengenics** Email: enquiries@sengenics.com

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.