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2-1846 KOZOJI-CHO, KASUGAI, AICHI, 487-0013 JAPAN

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SAFETY DATA SHEET

No.CRX-015-000-E

Revised 3rd edition : June 9, 2015 First edition : July 9, 2002

1. The Chemical Substance and Company Information

Names of chemical substance

Product name	CHROMATOREX
Grade	SO3H Series
Company's name	Fuji Silysia Chemical Ltd.
Address	2-1846 Kozoji-cho, Kasugai, Aichi, 487-0013 Japan
Telephone No.	+81-568-51-2511
Contact Department	Quality Assurance Department
Urgent Telephone No.	+81-568-51-2511(08:30~17:45 Business day)
Fax No.	$+81 \cdot 568 \cdot 51 \cdot 8557$
Mail address	<u>QAG@fuji-silysia.co.jp</u>
Recommended use and restriction of	use

Recommended use

Chromatography

Restriction of use

2.Hazards identification

GHS classification

Physicochemical hazards

	Flammable solids	out of classification
	Pyrophoric solids	out of classification
	Self-heating substances and mixtures	out of classification
Health hazards	Substances and mixtures which,	
	in contact with water,	out of classification
	emitflammable gases	
	Oxidizing solids	out of classification
	-	

Environmental hazards The items without description are out of classification or cannot be classified.

3. Composition / Information on Ingredients

Chemical Substance or Mixture Chemical substance

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Chemical name or gener Alias Chemical formula CAS registered No. Official gazette No. Che Lab A purity or a range	- SiO-[Si(OH)2(CH2)3OCH2CH(OH)CH2SO3H] -
4. First Aid Measure	
IF INHALED	Remove to fresh air and keep at rest in a position
IF ON SKIN	comfortable for breathing. Get medical advice/attention if you feel unwell. Wash exposed area with water. Wash contaminated clothing before reuse.
IF IN EYES	If skin irritation or rash occurs, get medical advice/attention Do not rub eyes. Rinse cautiously with water for several minutes.
IF SWALLOWED	Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice / attention. Vomit up and rinse mouth with clean water well. Get medical advice/attention if you feel unwell.
5.Fire Fighting Measure Extinguish media	This material is not combustible. Use extinguish agents appropriate for surrounding fire.
Protection of a person to extinguish a fire	Wear respiratory protection or chemical protective clothing for surrounding fire.

6. Accidental Release Measure Instructions for the human body, Protective equipment and emergency step

Large spill: Immediately isolate hazard area and deny entry to unnecessary personnel.

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Instructions for the environment	Wear an appropriate protection and to avoid contact or inhalation to eyes and skin. (ref. " 8. Exposure Control/ Personal Protection ") Do not discharge it to environment.
Collection, neutralization	Collect spillage and into an empty container and dispose them later as an industrial waste.
Preventive measures against second disaster	

Residue on the floor may cause slip, clean up diligently.

7. Handling and Storage

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	Technical measures	Do the equipment measures in the "8.Exposure Control/
		Personal Protection ", and wear the protection.
	Local / general ventilation	Do the local and general ventilation in the
		"8.Exposure Control/Personal Protection ".
	Safe handling instructions	Take precautionary measures against static discharge.
		Do not contact ,inhale or swallow.
		Perform ventilation for exhaust to keep the atmospheric
		concentration lower than exposure limit.
		Wash thoroughly after handling.
	Contact evasion	Refer to the "10. Stability and reactivity ".

Storage

Technical Measures	Install lighting and ventilation to store and handle.
Composite hazard substance	Refer to the "10. Stability and reactivity ".
Storage condition	Store in a cool / well-ventilated place to protect from sunlight
	and rainwater.
Container and packaging	Store it in tightly closed container which is
materials	not breakable.

8. Exposure Control/ Personal Protection

Permissible concentration No set	ing	
(an exposure limit value/ a biological exposure index)		
Japan Society of Occupational Health(201	5) The 3rd dust(Lime or other inorganic or organic)	
Total dust	8 mg/m3	
Inhalation-related due	st 2 mg/m3	

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ACGIH(2013)	Particles(insoluble or poorly soluble)
TLV-TWA	Respirable particles :3mg/m3
	Inhalable particles : 10mg/m3
	(Silica ,amorphous withdrawn in 2006.)
Equipment measure	Install washing eyes device in a workplace to store this
	material or handle it.
	Install a ventilating device to keep an air pollutant less than
	permissible concentration when dust occurs in process.
Protective equipment	
Protection for respiratory	Wear appropriate respiratory protection.
Protection for hands	Wear appropriate protective gloves.
Protection for eyes	Use personal eye protection .
Protection for skin and body	Use the appropriate protection suit and mask

Wash hands thoroughly after handling.

9. Physical and Chemical Properties

Hygiene measure

Physical State/Shape/Color	Solid, Fine particle, White
Odor	Odorless
pH	$5 \sim 9~(5\%$ slurry, mixture of water and ethanol)
Melting Point	No data
Boiling Point	No data
Flash point	$> 240^{\circ}$ C
Pyrophoric temperature	No data
Explosion range	No data
Vapor Pressure	No data
Vapor Density (Air =1)	No data
Specific Gravity	True specific gravity 2.2. The bulk density may vary depends
	on grades and packagings.
Solubility	No data
Octanol /water partition coefficient	No data
Decomposition temperature	No data

10. Stability and Reactivity

Stability	Stable under ordinary conditions of use(ambient temperature)
Hazard reaction possibility	On reacting with hydrogen fluoride, forms silicon fluoride
	(gas). Dissolved in strong bases.

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Condition to avoid	Contact with composite hazard substance
Composite hazard substance	Hydrogen fluoride, strong base
Hazard resolution substance	No information

11. Toxicological Information	
Acute Toxicity	No data
Skin corrosion / irritation	No data
Eye damage / irritation	No data
Sensitization	
respiratory/skin	No data
Germ cell mutagenicity	Negative: Reverse mutation test by Escherichia coli and
	Salmonella typhimurium
Carcinogenicity	Not classified in the list of 1st or 2nd substances
	by Japan Society of Occupational Health
Toxic to reproduction toxicity	No data
Specific target organ systemic toxicity (single exposure)	No data
Specific target organ systemic toxicity (repeated exposure)	No data

12. Environmental influence information

Hazardous to the aquatic environment-acute hazard	No data
Hazardous to the aquatic environment- chronic hazard2	No data
Persistence/Decomposition	No data
Bioaccumulation	No data
Migration in the soil	No data
Hazardous to the Ozone Layer	Not contains any substances listed by Montreal Protocol
13. Disposal Considerations	
Leftover waste	The disposal of the leftover waste has to be carried out in accordance with the legal requirements.
A pollution container	Clean a container and recycle it.
and packing	Or the appropriate disposal must be made according to official regulations.

When an empty container is disposed, remove contents completely.

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14. Transportation Information

International regulation	
UN number :	Not applicable
UN name for transportation :	Not applicable
UN Classification :	Not applicable
Marine regulatory information	Non- hazardous chemical
Air regulatory information	Non-hazardous chemical
Land regulatory information	Non-hazardous chemical

Special safety measuresOn the occasion of the transportation, load it to avoid direct rays of
the sun, the damage of a container, corrosion and leaking, and be
surely prevention of collapse of cargo.
Do not pile the heavy goods up on the top.

15. Regulatory Information

Labour Law for Safety &Health of Japan	Not applicable
Pollutant Release and Transfer Register Law	Not applicable
Poisonous and Deleterious Substances Control Law	Not applicable

16. Other Information

Export Control Act of Japan	Appendix 1 Item 16 Part 6 Group 38 Various Industrial Products
	Applicable for "Catch-All" restriction

References

Chemical Handbook Basic IUCLID Dataset (2000) FAO/WHO Toxicological Evaluation of Certain Food Additives With a Review of General Principles and Specifications OECD SIDS Profile for Initial Evaluations JJFC Vol.10(3) 2003 IARC "Agents Classified by the IARC Monographs" (October 2013) Recommendation by Japan Society of Occupational Health(2015) JIS Z 7252 :2014 JIS Z 7253 :2012 2013 TLVs and BELs(ACGIH) NITE CHRIP Data Base GHS Classification Guidance of Enterprises by Ministry of Economy, Trade and Industry of Japan (Rev.ver.1.1,2013)

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A disaster example

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No information available

Fuji Silysia Chemical Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy.

This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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