FUJI SILYSIA CHEMICAL LTD.

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

FAX NO. +81-568-51-8557

SAFETY DATA SHEET

No.CRX-013-000-E

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First edition: July 9, 2002

1. The Chemical Substance and Company Information

Names of chemical substance

Product name CHROMATOREX

Grade NH₂ Series

Company's name Fuji Silysia Chemical Ltd.

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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 generic name Surface treated silica gel, with aminopropylsilane

Alias -

Chemical formula $SiO-[Si(OH)_2(CH_2)_3NH_2]$

CAS registered No.

Official gazette No. Chemical Out of scope(combination of existing chemicals)

Labour Low volume New Chemical Substances

A purity or a range 100%

4. First Aid Measure

IF INHALED Remove to fresh air and keep at rest in a position

comfortable for breathing.

Get medical advice/attention if you feel unwell.

IF ON SKIN Wash exposed area with water.

Wash contaminated clothing before reuse.

If skin irritation or rash occurs, get medical advice/attention

IF IN EYES Do not rub eyes.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists, get medical advice / attention.

IF SWALLOWED 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 Wear respiratory protection or chemical protective clothing

to extinguish a fire 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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Wear an appropriate protection and to avoid contact or

inhalation to eyes and skin.

(ref. "8. Exposure Control/ Personal Protection")

Instructions for the environment 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

Handling

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 setting

(an exposure limit value/ a biological exposure index)

Japan Society of Occupational Health(2015) The 3rd dust(Lime or other inorganic or organic)

Total dust 8 mg/m3 Inhalation-related dust 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 .

Hygiene measure Wash hands thoroughly after handling.

9. Physical and Chemical Properties

Physical State/Shape/Color Solid, Fine particle, White

Odor Odorless

pH $5 \sim 9$ (5% slurry, mixture of water and ethanol)

Melting PointNo dataBoiling PointNo dataFlash point $>240^{\circ}$ CPyrophoric temperatureNo dataExplosion rangeNo dataVapor PressureNo dataVapor 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

No data

partition coefficient

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

Specific target organ systemic

toxicity (single exposure)

Specific target organ systemic

toxicity (repeated exposure)

No data

No data

No data

12. Environmental influence information

Hazardous to the aquatic

environment-acute hazard

environinent acute nazaru

Hazardous to the aquatic

environment-chronic hazard2

No data

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 measures On 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

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.

Prepared by Quality Assurance Department

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