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Safety Data Sheet

1. Identification of the substance or mixture and of the supplier

Product name : Molecular Sieves 5A 1/16
Product number : 04174-xx
Name of supplier : NACALAI TESQUE, INC.
Address : 498 Higashitamaya-cho, Nijo Karasuma, Nakagyo-ku, Kyoto, JAPAN
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SDS No. : GHS-04174E-4

2. Hazards identification

GHS hazard class and category

PHYSICAL HAZARDS	Explosives	-
	Flammable gases	-
	Aerosols	-
	Oxidizing gases	-
	Gases under pressure	-
	Flammable liquids	-
	Flammable solids	-
	Self-reactive substances and mixtures	-
	Pyrophoric liquids	-
	Pyrophoric solids	-
	Self-heating substances and mixtures	-
	Substances and mixtures which, in contact with water, emit flammable gases	-
	Oxidizing liquids	-
	Oxidizing solids	-
	Organic peroxides	-
	Corrosive to metals	-
HEALTH HAZARDS	Acute toxicity - oral	-
	Acute toxicity - dermal	-
	Acute toxicity - inhalation (gases)	-
	Acute toxicity - inhalation (vapours)	-
	Acute toxicity - inhalation (dusts and mists)	-
	Skin corrosion/irritation	-
	Serious eye damage/eye irritation	Category 2A
	Respiratory sensitization	-
	Skin sensitization	-
	Germ cell mutagenicity	-
	Carcinogenicity	-
	Reproductive toxicity	-
	Specific target organ toxicity - single exposure	-
	Specific target organ toxicity - repeated exposure	Category 1
	Aspiration hazard	-
ENVIRONMENTAL HAZARDS	Hazardous to the aquatic environment - acute hazard	-
	Hazardous to the aquatic environment - chronic hazard	-
	Hazardous to the ozone layer	-

- : Off the subject/not possible to classify

SYMBOL



SIGNAL WORD	Danger
HAZARD STATEMENTS	Causes serious eye irritation Causes damage to organs through prolonged or repeated exposure (respiratory organs)
PREVENTION	Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
RESPONSE	IF IN 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. Get medical advice/attention if you feel unwell.
STORAGE	-
DISPOSAL	Dispose of contents/container in accordance with regulation.

3. Composition/information on ingredients

Substance/mixture : Mixture

Chemical identity or ingredient name (Synonyms)	Chemical formula	CAS RN ®	Composition %	ENCS No.	ISHL No.
Synthetic zeolite	$M_2/nO \cdot Al_2O_3 \cdot xSiO_2 \cdot yH_2O$ (M : metal cation n : valence)	69912-79-4	abt. 80	-	-

Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance : None

Note :

Contains about 20% clay binder

4. First-aid measures

Inhalation :

Remove to fresh air and keep at rest. If breathing is weak, irregular or has stopped, open his airway, loosen his collar and belt and administer artificial respiration. Call a poison center/doctor if necessary.

Skin contact :

Wash immediately with plenty of water and soap. Call a POISON CENTER/doctor if necessary.

Eye contact :

Rinse immediately the affected eyes cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention as soon as possible.

Remove all chemicals from contact with the victim's eyes immediately. A delay of only seconds may increase the injury.

Ingestion :

Rinse mouth with water, and give one or two glasses of water to drink. Call a POISON CENTER/doctor if necessary.

Most important sign symptoms of acute and late symptoms :

No data available

Precaution for first-aid persons :

Wear rubber gloves and air-tight safety goggles.

Information for the physician :

No data available

5. Fire-fighting measures

Extinguishing media :

This product itself is non-combustible.

Use extinguishing media appropriate to surrounding fire conditions.

Incompatible extinguishing media :

Nothing particular

Specific hazards arising from the chemical (and with regard to fire-fighting measures) :

No data available

Specific fire-fighting measures :

Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Dry chemical powder or dry sand should be used for small fires.

Special protective equipment and precautions for fire-fighters :

Fire-fighters should wear proper protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures :

Evacuate non-essential personnel. Wear appropriate protective clothing.

Environmental precautions :

Attention should be given not to cause damage to the environment by flowing of spillage to rivers.

Methods and materials for containment and clean up :

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust.

Preventive measures for secondary accident :

Shut off the leakage source and stop leak if you can do it without risk.

7. Handling and storage

Precautions for safe handling :

Countermeasure technique(s) :

Do not shock, overturn, drop, or drag containers.

Use with an enclosed system or a local exhaust ventilation.

Wear suitable personal protective equipments.

Safety measures/incompatibility :

Handle not to generate aerosol or dust.

Incompatible contact(s) :

See [10. Stability and Reactivity].

Storage :

Conditions for safe storage, including any incompatibilities :

Countermeasure technique(s) :

In the storage place, facilities for necessary daylighting, lighting and ventilation are set up.

Incompatibilities :

See [10. Stability and Reactivity].

Recommendation for storage :

Protect from direct sunlight. Keep tightly closed in cool place.

Incompatible storage condition :

Keep away from incompatible material(s).

Recommended container and packaging materials :

polyethylene, polypropylene, etc.

8. Exposure control/personal protection

Appropriate engineering controls :

Keep source tightly closed or install local exhaust ventilation. Provide shower and vanity unit nearby and make clear the location of these.

Control value/Adopted value :

Chemical identity	Control value (Japan)	Adopted value (JSOH)	Adopted value (ACGIH)
Synthetic zeolite	Not established	Not established	Not established

Individual protection measures, such as personal protective equipment (PPE) :

Respiratory protection :

Dust mask

Hand protection :

Impervious glove

Eye protection :

Protective eyeglasses or chemical safety goggles

Skin and body protection :

Impervious clothing such as apron, boots, or whole-body suits

9. Physical and chemical properties

Appearance (physical state, color, etc.) :

Pale brown cylindrical pellet

Odor :

No data available

Odor threshold :	No data available
pH :	8 - 12 (10% slurry)
Melting point/freezing point :	No data available
Initial boiling point and boiling range :	No data available
Flash point :	Non-flammable
Evaporation rate :	No data available
Flammability (solid, gas) :	Non-flammable
lower flammability or explosive limits :	Non-flammable
Upper flammability or explosive limits :	Non-flammable
Vapor pressure :	No data available
Relative vapor density (air=1) :	No data available
Density/relative density :	No data available
Solubility in water :	Practically insoluble
Solubility(ies) in solvent :	No data available
Octanol/water partition coefficient (log Pow) :	No data available
Auto-ignition temperature :	Non-flammable
Decomposition temperature :	No data available
Viscosity :	No data available
Other data :	No data available

10. Stability and reactivity

Reactivity :

No data available

Chemical stability :

This product is considered a stable material under normal and anticipated storage and handling conditions.

Possibility of hazardous reactions :

Contact with water generate heat.

Conditions to avoid :

sunlight, heat, moisture

Incompatible materials :

No data available

Hazardous decomposition products (except for carbon monoxide, carbon dioxide and water) :

No data available

11. Toxicological information

(Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.)

Acute toxicity :

Chemical identity	Oral	Dermal	Inhalation
Synthetic zeolite	rat LD50 >31600 mg/kg	rabbit LD50 >2000 mg/kg	rat LC50 >14 mg/L/4H (dusts)

Skin corrosion/irritation :

No data available

Serious eye damage/eye irritation :

Causes serious eye irritation

Respiratory sensitization :

No data available

Skin sensitization :

No data available

Germ cell mutagenicity :

No data available

Carcinogenic effects :

Chemical identity	Carcinogenicity Assessment
Synthetic zeolite	IARC-Gr.3 ; Not classifiable as to carcinogenicity in humans.

Toxicity for reproduction :

No data available

Specific target organ systemic toxicity (single exposure) :

No data available

Specific target organ systemic toxicity (repeated exposure) :

Causes damage to organs through prolonged or repeated exposure (respiratory organs)

Aspiration hazard :

No data available

Other information :

No data available

12. Ecological information

(Insufficient data are available on the effect of this substance on the environment, therefore utmost care must be taken.)

Ecotoxicity :

Chemical identity	Fish toxicity
Synthetic zeolite	Crustacea (Daphnia magna) EC50/96H 377.17 mg/L

Persistence and degradability :

No data available

Bioaccumulative potential :

No data available

Mobility in soil :

No data available

Hazard to the ozone layer :

No data available

Other adverse effects :

No data available

13. Disposal considerations

Contact a licensed professional waste disposal service to dispose of this material. Comply with all country, national and local regulations.

14. Transport information

UN number : Not applicable

UN Proper shipping name : Not applicable

Class or Division : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Marine pollutant :

Land regulation information : Not controlled under ADR/RID's regulations.

Marine regulation information : Not controlled under IMDG's regulations.

Aviation regulation information : Not controlled under ICAO/IATA's regulations.

Special precautions with transport or conveyance :

Emergency Response Guidebook - Number (ERG No.) : -

15. Regulatory information

Compliance with national and local regulations is the responsibility of the user.

16. Other information

DISCLAIMER :

For R&D use only. Not for drug, household or other uses.

WARRANTY :

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.