

Date prepared: 1993/07/15

Date revised: 2015/12/4

Safety Data Sheet

1. Product and Company Identification

Product : **MICROPEARL AU**

Company : SEKISUI CHEMICAL CO., LTD.

Address : 1259 Izumi, Minakuchi, Koka, Shiga, 528-8585, Japan

Department : Quality Assurance Section, Fine Chemicals Production Department,
Shiga Minakuchi Plant

Phone : 81-(0)748-62-7110 Fax: 81-(0)748-62-9618

Reference No. : AU1001

2. Hazards Identification

GHS classification:

Physical and chemical hazard:	Solid liable to spontaneous combustion	N/A
	Substance which, in contact with water, emit flammable gases	N/A
Health hazard:	Acute oral toxicity	N/A
	Respiratory system sensitization	Class 1
	Skin sensitization	Class 1
	Carcinogenicity	Class 2
	Reproductive toxicity	Class 2
	Specific target organ/systemic toxicant (Single exposure)	Class 1 (Respiratory system and kidneys)
	Specific target organ/systemic toxicant (Repeated exposure)	Class 1 (Respiratory system)
Environmental hazard:	Aquatic environment chronic toxicity	Class 4

* Ones not described here are not objects for classification or not classifiable.

Label factor

Pictograph or symbol:



Safety reminder:

Hazard

Hazard information:

When inhaled, possibilities of allergies, asthma, or breathing difficulty
 Possibility of allergic skin reaction
 Suspected of causing cancer
 Possibility of negative effects in reproductive ability or in unborn baby
 Disorder in respiratory system and kidney
 Respiratory system disorder by prolonged or repeated exposure
 Possibility of harmful effect to aquatic organisms by a long-term effect

Warning:

[Safety measure]

Do not handle the material until all warning descriptions are read and understood.
 Before start using the material, acquire the instruction manual.
 Avoid eating, drinking, or smoking when handling this material.
 Use personal protective equipment and exhaust system to avoid exposure.
 If ventilation is insufficient, wear respiratory protective equipment.
 Wear gloves.

Use only outdoors or in a well-ventilated area.

Do not inhale dust.

Wash hands thoroughly after handling this material.

Do not take out any contaminated clothes from a workplace.

Do not release to the environment.

[First aid treatment]

If inhaled, remove to fresh air and keep a patient at a posture that eases breathing.

In case of skin contact, wash thoroughly with soap and a copious amount of water.

If re-using a contaminated cloth, wash the cloth beforehand.

If exposed or concerned to be exposed, seek medical attention.

If feeling sick, seek medical attention.

If there is a ventilation problem, seek medical attention.

If skin is irritated or antherma occurs, seek medical attention.

[Storage]

Lock for storage.

[Disposal]

Consign disposals of contents and containers to a waste disposer authorized by a prefectural governor.

3. Composition/Information on Ingredients

Single substance/Compound: Compound

Chemical name, ingredients, and content:

Ingredient	Content (%)	Chemical formula	CAS No.
(1) Divinylbenzene	55 to 26	(C ₁₀ H ₁₀) n	434285-53-7
Polymer			
(2) Nickel	Described in Table 1	Ni	7440-02-0
(3) Gold	10 to 50	Au	7440-57-5

TSCA: 434285-53-7

UN class and UN No.: N/A

Hazardous ingredient: Nickel (Designated chemical substance by PRTR law: Class 1, No. 308)

4. First Aid Measures

Eye contact: Immediately rinse the eye sufficiently with running water. Seek medical attention.

Skin contact: Wash thoroughly with soap and water. If irritated, seek medical attention.

Inhalation: Gargle. If feel sick, remove to fresh air and rest quietly. If needed, seek medical attention.

Ingestion: Give plenty of water to drink and provoke vomiting. If needed, seek medical attention.

5. Fire Fighting Measures

Fire-fighting method: Remove the combustion source and extinguish a fire with an extinguisher. Spray water in order to prevent spread of the fire. Extinguish the fire from the windward side. If necessary, wear respiratory protective equipment.

Extinguisher: Use water, dry chemical powder fire extinguisher, carbon dioxide fire extinguisher, and etc.

6. Accidental Release Measures

- Always wear protective equipment when cleaning up the released material. Collect the released material while paying attention to the dust generation.
 - Sweep to collect the released material and then wipe with wiping cloth.
-

7. Handling and Storage

[Handling]

- Wear appropriate protection equipment in order to prevent inhalation, eye or skin contact, or contaminated cloth.
- Handle the material in a place where local exhaust equipment is installed and running.
- After opening a container, seal it immediately after a use in order to prevent flying apart or absorbing moist.
- Handle the container gently as to avoid falling, dropping, or applying a shock.

[Storage]

- Specify a storage place. Organize and store tidily.
 - Keep the container in a sealed condition at a sufficiently ventilated, dry, cool and dark place. Avoid sunlight.
-

8. Exposure Controls/Personal Protection

[Facility measures]

- Seal a generation source in an in-house workplace or install a local exhaust system.
- Install a safety shower and a hand-wash and eyewash station. Clearly specify the position.

[Protective equipment]

- Respiratory protective equipment: Dust mask
- Hand protective equipment: Gloves
- Eye protective equipment: Glasses (Protective glasses with side shields)
- Protective gown: Work clothes with long sleeves (Ideal to avoid contacting to skin)

[Allowable concentration]

- Administrative concentration: N/A
 - Allowable concentration: Recommended value by The Japan Society for Occupational Health (Year 2000 version)
In case of metal nickel powder: 1 mg/m³
-

9. Physical and Chemical Properties

Exterior:	Brownish yellow powder	Melting point:	None
Odor:	None	Boiling point:	None
Specific gravity:	1.5 to 3.0	Volatility:	None
Vapor pressure:	0 Pa	Flashing point:	N/A
Ignition point:	N/A	Explosion limit:	N/A
Combustibility:	None	Oxidizing characteristics:	None
Self-reactive:	None		

Combustibility (spontaneous combustibility, water reactivity): None

Powder explosibility: In case of polystyrene, 20 g/m³ (490°C or above)

Solubility in solvent: Insoluble in water, ethanol, and acetone

Octanol-water partition coefficient log Po/w: Insoluble in both octanol and water

10. Stability and Reactivity

Stability: Stable

Reactivity: None

Condition to be avoided:

[Nickel] Reacts violently with fluorine, ammonia, ammonium nitrate, hydrazine. Do not mix with aluminum, aluminum trichloride, ethylene, P-dioxane, hydrogen, methanol, oxidizing agent, and sulfated compound.

[Gold] Do not mix with concentrated ammonia water, chloride that generates nascent halogen, bromide, composite and various kinds of oxidants containing iodide, alkali cyanide, thiocyanate solution, and multiple cyanide.

11. Toxicological Information

Skin corrosivity: None

Irritant property (Skin and eye): physical action as a foreign object

Causing sensitivity: N/A

Acute toxicity (LD50): Oral [Female mouse] Not confirmed when 2000 mg/kg or more is given.

Subacute toxicity: N/A

Chronic toxicity: N/A

Carcinogenicity:

[Nickel] IARC: 2B (Could be carcinogenicity)

Japan Society for Occupational Health: Group 2B (Could be carcinogenicity)

NTP: b "Reasonably anticipated to be human carcinogens"

ACGIH: A5 "Not suspected as a human carcinogen"

EU-RAR: Category 3

Mutagenic property (Microorganism and chromosomal abnormality):

[Base core] Negative (Ames test)

[Nickel] Data on mutagenicity is available. (Positive)

Reproductive toxicity: N/A

Teratogenic potential: N/A

Others (Including a case that generates hazardous gas by reacting with water): Not reactive with water

[Nickel] Toxic when absorbed orally, through endotracheal administration, or intracavernous administration. Carcinogenicity, tumorigenicity, and neoplastic are confirmed in animal testing.

12. Ecological Information

Degradability: None

Accumulating property: N/A

Fish toxicity: N/A

Others: N/A

13. Disposal Considerations

Ideal if consigning disposals of the material as metallic waste to a waste disposer.

Comply with corresponding national and regional regulations.

14. Transport Information

The goods are safe for air transportation under the regulations of IATA.

When transporting, confirm that there is no crack or leak on the container. Load as the container does not fall, drop, or get damaged. Take appropriate measures to prevent loosening.

UN No.: Not restricted

UN classification: Not restricted

15. Regulatory Information

Industrial Safety and Health Law: Hazardous material of which its name is to be informed.

PRTR law: [Nickel] Class 1 specified material (No. 308)

16. Other Information

- Contents of this data sheet are provided for an informational purpose only and do not warrant the quality of the material.
 - Assessments on hazardous property do not cover all properties. Take care when handling the product.
 - Precautions described here are applied for normal use only. When using the material in a special way, study the safety measure appropriate for that application and usage, and use the material at the customer's discretion.
 - The contents may be revised according to new findings and test results.
- “Handbook of risks and hazards in chemical materials,” Japan Industrial Safety and Health Association edition
 “Chemical handbook,” The Chemical Society of Japan edition

Table 1: Nickel contents

Part No.	Content % (wt%)
AU- 203	34
AU- 20325	34
AU- 2035	34
AU- 20375	34
AU- 204	31
AU- 20425	30
AU- 2045	30
AU- 20475	29
AU- 205	23
AU- 20525	23
AU- 2055	23
AU- 20575	23
AU- 206	23
AU- 20625	23
AU- 2065	22
AU- 20675	22
AU- 207	22
AU- 20725	22
AU- 2075	22
AU- 20775	22
AU- 208	21
AU- 20825	21
AU- 2085	21
AU- 20875	21
AU- 209	21

Part No.	Content % (wt%)
AU- 20925	21
AU- 2095	21
AU- 20975	21
AU- 210	20
AU- 21025	20
AU- 2105	20
AU- 21075	20
AU- 211	20
AU- 21125	20
AU- 2115	20
AU- 21175	20
AU- 212	20
AU- 21225	20
AU- 2125	20
AU- 21275	20
AU- 213	19
AU- 21325	19
AU- 2135	19
AU- 21375	19
AU- 214	19
AU- 21425	19
AU- 2145	19
AU- 21475	19
AU- 215	19
AU- 220	18