

SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name: **NEO MAGNALITE FY-500C, a concentrated fluorescent magnetic particle liquid**

Company Name: Denshijiki Industry Co., Ltd.

Address: 5-6-20 Ukima, Kita-Ku, Tokyo

Section in Charge: Development department

Telephone: +81-3-5970-8681 Fax: +81-3-5970-8680

Emergency Telephone: Same as the section in charge

Issue Date: April 22, 2014 Revision Date: December 1, 2024

Reference Number: SDS15120-24

Product Code: 15120

Recommended Uses and Restrictions on Use: Magnetic particle testing (water-based method)

2. Hazards Identification

GHS Classification

Physical Hazards –

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1

Environmental Hazards –

GHS Label Elements

Pictogram



Signal Word Warning

Hazard Statements

- Causes skin irritation
- Causes serious eye irritation
- May cause an allergic skin reaction

Precautionary Statements

[Prevention]

- Wash hands thoroughly after handling. Do not touch eyes.
- Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Contaminated work clothing should not be allowed out of the workplace.

[Response]	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical help. Take off contaminated clothing and wash it before reuse. 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 help.
[Storage]	Store locked up.
[Disposal]	Dispose of contents/container in accordance with regional/national regulations.

3. Composition/Information on Ingredients

Classification of Substance or Mixture: Mixture

Ingredient	Content	Reference Number in Gazetted List (Chemical Substances Control Act/Industrial Safety and Health Act)	CAS No.
Iron oxide powder	5–15%	(1)-357/192	1309-38-2
Fluorescent pigment	1–10%	Registered	Registered
Synthetic resin	1–5%	Registered	Registered
Inorganic extender pigment (titanium oxide)	0.1–1%	(1)-558/191	13463-67-7
Surfactant	5–10%	Registered	Registered
Antifoam agent	1–5%	Registered	Registered
Rust inhibitor (as triethanolamine)	10–20% (lower than 5%)	Registered ((2)-308/381)	Registered (102-71-6)
Water	50–70%	-	-

Impurities and Stabilizing Additives which Contribute to the GHS Classification of the Substance: None

4. First-aid Measures

IF IN EYES	: Immediately hold the eyelids open, rinse cautiously with clean water for several minutes, and see an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN	: Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention.
IF INHALED	: Immediately remove the victim to fresh air and keep at rest and warm. Get medical advice as needed.
IF IN MOUTH	: Rinse mouth. Keep at rest and immediately arrange for medical treatment.
IF SWALLOWED	: Immediately call a doctor/physician. If accidentally swallowed in small quantities, rinse the mouth. Keep at rest and do NOT induce vomiting.

5. Fire-fighting Measures

Extinguishing Media : In case of minor fire: dry chemicals, carbon dioxide, foam, and dry sand
In case of major fire: water sprinkling, water spraying, and alcohol-resistant foam fire extinguishing agent

Inappropriate Extinguishing Media:

Do not spray a straight stream of water directly onto a fire source.

Extinguishing Methods : This product is non-flammable, but if it is exposed to fire, extinguish the fire with plenty of water. If a fire breaks out in the surrounding area, remove containers to a safe place. Perform fire-fighting from the windward side, and wear respiratory protection if needed.

Specific Extinguishing Methods:

Remove containers from the fire area if safe to do so. To prevent the fire from spreading, remove nearby flammable materials if safe to do so.

Protection of Fire-fighters: When fighting fire, wear an appropriate breathing apparatus and chemical protective clothing.

If the fire is massive and fighting it is dangerous, promptly evacuate from the fire area.

Specific Hazards : Since in the event of a fire, this product may generate toxic gases and cause oxygen deficiency, use appropriate protective equipment.

6. Accidental Release Measures

Personal Precautions Keep unnecessary personnel away.

Protective Equipment and Emergency Procedures

When dealing with the released material, wear appropriate protective equipment (refer to Section 8. Exposure Controls and Personal Protection) to avoid contact with eyes and skin or inhalation.

Deal with the released material from the windward side.

Environmental Precautions

Avoid releasing the material into the environment.

Be careful not to discharge into rivers or other bodies of water so as not to affect the environment.

Methods and Materials for Containment and Cleaning Up

Sweep up any released material and collect it into empty sealable containers for later disposal. If the released material may be moistened, do so to prevent generation of dust, and then sweep it up.

7. Handling and Storage

[Handling]

Technical Measures Take engineering measures and use protective equipment as described in Section 8. Exposure Controls and Personal Protection.

Local/Total Ventilation Provide local and general ventilation as described in Section 8. Exposure Controls and Personal Protection.

Precautions for Safe Handling

- Do not get in eyes.
- Do not breathe mist, vapors, or spray.
- Avoid contact, inhalation, and ingestion.
- Do not eat, drink or smoke when using this product.
- Wash hands thoroughly after handling.

Avoidance of Contact Refer to Section 10. Stability and Reactivity.

[Storage]

Technical Measures The floor of the storage location should be structured so that water does not enter or permeate the floor surface. The floor of the storage location should be structured so that dangerous substances do not permeate it, should be appropriately sloped, and should be equipped with appropriate drainage pits. Wear appropriate protective equipment to avoid inhalation and contact with eyes, skin, etc. Keep containers tightly closed. Ensure that the product does not leak, overflow, or scatter. Handle the product in a well-ventilated place.

Storage Conditions Prevent leakage. Store in an indoor, cool, dark, and well-ventilated place.
 Protect from direct sunlight and keep away from high-temperature substances.
 Keep tightly sealed and avoid contact with air.
 Do not store this product and flammable substances in the same place.
 Store in accordance with regulations and conditions specified by relevant laws and regulations.
 Be careful not to allow this product to run off, spread, or contaminate the surrounding area.

Incompatible Materials Refer to Section 10. Stability and Reactivity.

Packaging Materials Use containers specified in the Fire Service Act and UN laws and regulations on transportation.

8. Exposure Controls and Personal Protection

Ingredient	Control Levels	Permissible Exposure Levels	ACGIH
Iron oxide powder	3.0 mg/m ³	4 mg/m ³ (as total dust)	5 mg/m ³ (TLV-TWA)
Fluorescent pigment	No data available	No data available	0.37 mg/m ³ (TLV-C)
Synthetic resin	No data available	8 mg/m ³ (as total dust)	10 mg/m ³ (TLV-TWA)
Inorganic extender pigment	Not established	4 mg/m ³ (as total dust)	10 mg/m ³ (TLV-TWA)
Triethanolamine	Not established	Not listed	5 mg/m ³ (TWA)

- Engineering Measures : In an indoor, inadequately ventilated workplace, it is necessary to provide equipment for sealing generation sources, or local or general ventilation equipment.
- Safety Measures : Wear protective equipment as needed.
- Protective Equipment : Use an appropriate breathing apparatus, etc. (dust mask)
Wear appropriate protective glasses.
Appropriate protective gloves (rubber gloves, etc.)
Wear boots, an apron, and appropriate protective clothing.
- Hygiene Measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
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9. Physical and Chemical Properties

Physical State	Liquid
Form	Viscous liquid
Color	Yellow green
Odor	Slight odor
Melting Point/Freezing Point	No data available
Boiling Point or Initial Boiling Point and Boiling Range	No data available
Flammability	No data available
Flash Point	N/A (as a product)
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
pH	No data available
Kinematic Viscosity	No data available
Solubility	Soluble in water. Slightly soluble in alcohol
n-Octanol/Water Partition Coefficient (Log Value)	No data available
Vapor Pressure	No data available
Density and/or Relative Density	1.14 g/cm ³
Relative Gas Density	No data available
Particle Characteristics	No data available

10. Stability and Reactivity

Reactivity and Chemical Stability	Stable under normal handling and storage conditions.
Possibility of Hazardous Reactions	No data available
Conditions to Avoid	Refer to Section 7. Handling and Storage.
Incompatible Materials	No data available
Hazardous Decomposition Products	No data available

11. Toxicological Information

Acute Toxicity

No data available

Skin Corrosion/Skin Irritation

Classified as Category 2 because an ingredient classified as Category 2 is contained in a concentration of 10% or higher.

Serious Eye Damage/Eye Irritation

Classified as Category 2 because an ingredient classified as Category 2 is contained in a concentration of 10% or higher.

Respiratory Sensitization

No data available

Skin Sensitization

Classified as Category 1 because an ingredient classified as Category 1 is contained in a concentration of 1% or higher.

Germ Cell Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive Toxicity

No data available

Specific Target Organ/Systemic Toxicity (Single Exposure)

No data available

Specific Target Organ/Systemic Toxicity (Repeated Exposure)

No data available

Aspiration Hazard

No data available

12. Ecological Information

Ecotoxicity

No data available

Persistence/Degradability

No data available

Bioaccumulative Potential

No data available

Mobility in Soil

No data available

Hazardous to the Ozone Layer

No data available

13. Disposal Considerations

Disposal Methods

Before disposal, conduct a treatment that conforms to the Water Pollution Prevention Act and other related laws and regulations. Alternately, have the waste disposed of by a licensed industrial waste disposal contractor with appropriate disposal capability. Do not discharge wastewater from washing containers, equipment, etc. into the ground or drain outlets; instead, treat it with active sludge or by other means to clean it before discharge, or have it disposed of by an appropriate contractor.

Waste from Residues

Dispose of waste from residues in accordance with related laws and regulations as well as municipal rules. Have waste disposed of by an industrial waste disposal contractor licensed by the prefectural governor or by the local government if the relevant administrative organ operates waste disposal facilities.

Contaminated Container and Packaging

Wash and recycle containers, or treat or dispose of them appropriately in accordance with related laws and regulations as well as municipal rules. Completely remove the contents of empty containers before disposing of them.

14. Transport Information

Domestic Regulations (Regulatory Information)

- By Land : Not subject to any special regulations.
By Sea : Not subject to any special regulations.
By Air : Not subject to any special regulations.

UN No.	: N/A
UN Classification	: N/A. Does not constitute a hazardous material according to the UN classification.
Marine Pollutant	: N/A
Special Precautions	: Follow the precautions regarding handling and storage. When transporting this product, check that containers do not leak; load them so that they will not topple, fall, or be damaged; and take measures to prevent cargo from collapsing. Load containers in a well-ventilated place, away from rainwater and direct sunlight. Load containers away from fire and heat sources. Do not place heavy goods atop containers. Transport according to regulations under conditions based on related laws and regulations.

15. Regulatory Information

Fire Service Act : Non-hazardous material

Industrial Safety and Health Act:

Substances whose names, etc. should be indicated (Article 57-2 of the Industrial Safety and Health Act, Appended Table 9, Article 18-2 of the Order for Enforcement of the Act)

Titanium oxide (IV) (Cabinet Order No. 191)

Iron oxide (Cabinet Order No. 192)

Triethanolamine (Cabinet Order No. 381)

Substances whose names, etc. should be notified (Article 57-2 of the Industrial Safety and Health Act, Appended Table 9, Article 18-2 of the Order for Enforcement of the Act)

Titanium oxide (IV) (Cabinet Order No. 191)

Iron oxide (Cabinet Order No. 192)

Triethanolamine (Cabinet Order No. 381)

Poisonous and Deleterious Substances Control Act : N/A

PRTR Act : N/A

Ordinance on Prevention of Hazards Due to Specified Chemical Substances:

N/A

Ordinance on the Prevention of Organic Solvent Poisoning : N/A

Regulations for the Carriage and Storage of Dangerous Goods by Ship:

N/A

Air Pollution Control Act : Applicability cannot be determined.

Water Pollution Prevention Act : Applicability cannot be determined.

Act on Waste Management and Public Cleaning : Industrial waste

16. Other Information

References: Guidelines for Preparing Material Safety Data Sheets

Japan Chemical Industry Association

Internal documents of Nihon Kensa Kizai Co., Ltd. (SDS for the materials)

Safety data sheet for chemical products Part 1: Content and order of sections [JIS Z 7253]

(Material) Safety Data Sheets (SDS) provided by raw material manufacturers

Disclaimer

Safety Data Sheets are provided to business users of hazardous chemical products as reference information to ensure their safe handling.

The information contained in this SDS is based on documents, information, and data available to us at the time of preparation or revision, but we do not represent any guarantee as to its correctness or safety.

All chemical products may have unknown hazards and should be handled with great care.

The precautions in this SDS assume normal handling. If this product is to be used in a special manner, the user is responsible for taking appropriate measures for that particular use. Please take safety measures appropriate for the usage.

This Safety Data Sheet was prepared in accordance with JIS Z 7253:2019 and is subject to change as new findings, including test results, become available.
