Date of issue for the 1st edition : 15/04/2020

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Eco Magna Fluorescent Magnetic Particle Concentrated Suspension LY-20F Conc. Product code (SDS NO): LY049US-1 Relevant identified uses of the product: Non Destructive Testing Details of the supplier of the safety data sheet Manufacturer/Supplier: MARKTEC CORPORATION Address: 17-35, OMORI-NISHI, 4-Chome, OTA-Ku, TOKYO 143-0015 JAPAN Telephone number: +81-3-3762-4453 FAX: +81-3-3768-3958 2. Hazards identification GHS classification and label elements of the product Classification of the substance or mixture **ENVIRONMENT HAZARDS** Hazardous to the aquatic environment (Acute): Category 2 (Note) GHS classification without description: Not classified/Classification not possible Label elements No GHS label element No Signal word HAZARD STATEMENT Toxic to aquatic life PRECAUTIONARY STATEMENT Prevention Avoid release to the environment. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Response Get medical advice/attention if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Storage Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store at temperatures not exceeding 40°C Disposal Dispose of contents/container in accordance with local/national regulation.

- 3. Composition/information on ingredients
 - Mixture/Substance selection:

Mixture

Ingredient name	Content (%)	CAS No.
Water	50 - 60	7732-18-5
		1309-38-2/1222
Iron oxide	10 - 20	7-89-3/1317-61
		-9
Fluorescent pigment	5 - 15	Registered
Surfactant A	5 - 15	Registered
Surfactant B	0.1 - 2	Registered
Surfactant C	< 0.5	Registered
Triethanolamine	1 – 5	102-71-6
Resin	1 – 5	Registered
Sodium nitrite	1 – 5	7632-00-0
Adipic acid	0.1 - 2	124-04-9
Methanol	< 0.5	67-56-1

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

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

Do not let the victim rub his eyes.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Unsuitable extinguishing media data is not available.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures Keep unauthorized personnel away. Ventilate area until material pick up is complete.

Wear proper protective equipment.

Be careful not to slip on spilled area.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Methods and materials for containment and cleaning up

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Preventive measures for secondary accident

Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves/eye protection/face protection.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Wash hands thoroughly after handling.

Storage

Conditions for safe storage

Store in a well-ventilated place. Keep cool.

Conditions for safe storage data is not available.

Container and packaging materials for safe handling data is not available.

8. Exposure controls/personal protection

Control parameters Adopted value

(Triethanolamine)

ACGIH(1990) TWA: 5mg/m3 (Eye & skin irr)

(Adipic acid)

ACGIH(1990) TWA: 5mg/m3 (URT irr; ANS impair)

(Methanol)

ACGIH(2008) TWA: 200ppm;

STEL: 250ppm (Headache; eye dam; dizziness; nausea)

Notation

(Methanol)

Skin

OSHA-PEL

(Methanol)

TWA: 200ppm, 260mg/m3

NIOSH-REL

(Methanol)

TWA: 200ppm; STEL: 250ppm

California proposition 65 developmental MADL (Methanol) MADL=(inhalation) 47000 μ g/day; (oral) 23000 μ g/day Exposure controls Appropriate engineering controls Do not use in areas without adequate ventilation. Individual protection measures Respiratory protection In case of inadequate ventilation wear respiratory protection. Hand protection Wear protective gloves. Eye protection Wear eye/face protection. Skin and body protection Wear protective clothing. 9. Physical and Chemical Properties Information on basic physical and chemical properties Physical state: Liquid Color: Dark green Odor: Very little oder pH data is not available. Boiling point or initial boiling point: $\geq 100^{\circ}C$ Melting point/Freezing point data is not available. Decomposition temperature data is not available. Flammability (gases, liquids and solids) data is not available. Flash point: Not applicable Auto-ignition temperature: No information Lower and upper explosion limit/flammability limit data is not available. Vapor pressure data is not available. Relative vapor density (Air=1) data is not available. Density and/or relative density: 1.18g/cm3 Kinematic viscosity data is not available. Solubility: Solubility in water: Soluble n-Octanol/water partition coefficient data is not available. No Particle characteristics data is not available. 10. Stability and Reactivity Reactivity Reactivity data is not available. Chemical stability Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

Conditions to avoid

Conditions to avoid data is not available.

Incompatible materials

Incompatible materials data is not available.

Hazardous decomposition products

Hazardous decomposition products data is not available.

Eco Magna Fluorescent Magnetic Particle Concentrated Suspension LY-20F Conc.,MARKTEC 5/7 CORPORATION,LY049US-1,15/04/2020

11. Toxicological Information Information on toxicological effects Acute toxicity data is not available. Irritant properties Skin corrosion/irritation data is not available. Serious eye damage/irritation data is not available. Allergenic and sensitizing effects data is not available. Mutagenic effects data is not available. Carcinogenicity (Triethanolamine) IARC-Gr.3 : Not Classifiable as a Human Carcinogen Reproductive toxicity data is not available. STOT STOT-single exposure data is not available. STOT-repeated exposure data is not available. Aspiration hazard data is not available. Additional data Data on the preparation itself is not available. 12. Ecological Information Ecotoxicity Aquatic toxicity Toxic to aquatic life Water solubility (Triethanolamine) miscible in water (HSDB, 2013) (Surfactant C) poor (ICSC, 1996) (Adipic acid) 1.4 g/100 ml (15°C) (ICSC, 1998) (Methanol) 100 g/100 ml (PHYSPROP_DB, 2009) (Sodium nitrite) 82 g/100 ml (20°C) (ICSC, 2000) Persistence and degradability (Triethanolamine) Not degrade rapidly (BOD_Degradation : 0% (Registered chemicals data check & review 1978)) (Surfactant C) Degrade rapidly (BOD_Degradation : 99.9, 79.0% (Registered chemicals data check & review, 1977)) (Adipic acid) Degrade rapidly (BOD_Degradation : 85, 68, 90% (Registered chemicals data check & review 1989)) (Surfactant B) Not degrade rapidly (BOD_Degradation: 0, 9, 0% (Registered chemicals data check & review, 1991)) Bioaccumulative potential (Triethanolamine) log Pow=-2.3 (ICSC, 2003) (Surfactant C) log Pow=2.28 (IUCLID, 2000) (Adipic acid) log Pow=0.08 (PHYSPROP DB, 2009)

(Methanol) log Pow=-0.82/-0.66 (ICSC, 2000) (Sodium nitrite) log Pow=-3.7 (ICSC, 2000) Mobility in soil Mobility in soil data is not available. Other adverse effects Ozone depleting chemical data is not available. Additional data Data on the preparation itself is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging Waste treatment methods

Naste treatment methods

Avoid release to the environment (– if this is not the intended use).

 $\label{eq:Dispose of contents/container in accordance with \ local/national \ regulation.$

14. Transport Information

Not applicable to UN No., UN CLASS Environmental hazards MARPOL Annex III - Prevention of pollution by harmful substances Marine pollutants (yes/no) : no

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture US major regulations

Chemicals listed in TSCA Inventory

All ingredients are listed.

California proposition 65

developmental

Methanol

Other regulatory information

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

16. Other information

GHS classification and labelling

Aquatic Acute 2: H401 Toxic to aquatic life

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IATA Dangerous Goods Regulations (60th Edition) 2019

Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2019 TLVs and BEIs. (ACGIH)

http://monographs.iarc.fr/ENG/Classification/index.php

Supplier's data/information

Hazard Communication Standard – 2012 (29 CFR 1910.1200)

General Disclaimer

To the best of our knowledge, the information contained here in is accurate. However, we assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole

responsibility of user. All material may present unknown hazards and should be used in caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist.

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The GHS classification data given here is based on current EU official data (EU CLP published in 01.03.2018).