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SECTION 1: Identification of the substance/preparation and of the company/undertaking —

1.1 Product identifier

Product name: Binder TFG 0905-4

Product name: Binder TFG 0905-4

1.2 Relevant identified uses of the substance or mixture and uses adviced against

Recommended use: Printing ink for paper, textile, wood, and film.

Product description: Water based binder of resin.

1.3 Details of the supplier of the Safety Date Sheet

Supplier: Matsui Shikiso Chemical Co., Ltd.

64, Kamikazan Sakuradani-cho, Yamashina-ku, Kyoto, 607-8466, JAPAN

Telephone no.: +81 75 594 5612

E-mail: msc-export@msc-color.co.jp
Agency: Matsui International Co., Inc.

1501 West 178th Street, Gardena, CA 90248, U.S.A.

Telephone no.: (310) 767-7812

1.4 Emergency telephone number

+81 (75) 594-5612 / (310) 767-7812

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification acording to regulation (EC)No. 1272/2008 [CLP]:

See Section 16.

Classification acording to Council Drective 67/548/EEC:

Not classified.

2.2 Label elements None.2.3 Other hazards None.

SECTION 3. Composition/information on ingredients -

3.2 Mixtures

Resin: Concentration 45-50%

CAS No. 25749-60-4 EC No. polymer

Ethylene glycol: Concentration 22%

CAS No. 107-21-1 EC No. 203-473-3 Index No. 603-027-00-1

Surfactant Concentration 1%

CAS No. 9002-92-0 EC No. 500-002-6

Water and other non-hazardous ingredients: the rest

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Hazardous ingredient:

	Classification acording to 67/548/EEC	Classification acording (EC)No.1278/2008[CLP]
Surfactant	None.	the aquatic environment (Acute) 1; H400

Reffer to Section 16 for full text of R-phrase or H-code.

Product name: Binder TFG 0905-4

SECTION 4. First-aid measures

4.1 Description of first aid measures

Inhalation: If inhale a large quantity, remove to fresh air and lie quiet. Seek medical

attention as needed.

Skin contact: Wash with mild soap and water. If needed, get medical attention.

Eye contact: Immediately flush eyes with water for at least 15minutes. Remove contact

lenses if easily possible. Get medical attention.

Ingestion: Rinese mouth thoroughly with water. Seek medical attention as needed.

4.2 Most important symptoms and effects, both acute and delayed

No symptoms known currently.

4.3 Indication of any immediate medical attention and special treatment neede

No special measures needed.

SECTION 5. Fire-fighting measures –

5.1 Extinguishing media

Suitable extinguishing media: In case of combustion, use water, sand, dry chemical, or CO₂ gas.

(This product is not combustible under normal condition due to its aqueous

property.)

Unsuitable extinguishing media:

No data available.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:

No data available.

5.3 Advice for firefighters: In case of fire, wear respirator.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing and equipment as needed. Ventilate area.

6.2 Environmental precautions Dike with sandbags to prevent contaminating soil, or entering sewers or

bodies of water. If material is released to water supply, drains or

vegetation, advise local authority.

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6.3 Methods and materials for containament and cleaning up

Product name: Binder TFG 0905-4

For small spill, absorb with dry sand, soil, saw dust or rag. Collect into

container for disposal and wipe the remaining up with rag.

For large spill, dike with soil, blanket or sandbags to prevent from entering

public waters, and collect into container with shovel or vacuum.

6.4 Reference to other sections Reffer to section 8 and 13.

SECTION 7. Handling and storage -

7.1 Precautions for safe handling

Protective measures: Wear suitable protective equipment and clothing as needed to prevent the

material from contacting skin and eyes. Local exhaust ventilation is necessary when vapors or mists can be released. Minimize vapour

generation and avoid breathing vapour.

Advice on general occupational hygiene:

Wash thoroughly after handling. Do not eat, drink, or smoke during work.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures storage conditions:

Store in a cool and dark place away from direct sunlight. Avoid freezing.

Keep container tightly closed.

Packaging materials: Impermeable materials.

7.3 Specific end uses Reffer to Section 1.2

SECTION 8 Exposure controls/personal protection -

8.1 Control parameters

Occupational exposure limit values:

Ethylene glycol:

STEL 100 mg/m³ (ACGIH, ceiling value, 2011)

MAK 10 ppm, 26 mg/m³ (DFG, 2004)

IOELVs 52mg/m3, 20ppm(8h), 104mg/m3, 40ppm(short-term)

8.2 Exposure controls

Appropriate engineering controls:

Local exhaust ventilation is necessary during operation, especially when

vapors or mists can be released.

Personal protection equipment:

- Respiratory protection: Wear mask when applicable.

- Hand protection: Wear rubber or plastic gloves.

- Eye protection: Wear safety glasses or chemical goggles.

- Skin and body protection: Wear long pants, long sleeves and face shield when applicable.

Hygiene measures: Nothing in particular.

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SECTION 9. Physical and chemical properties -

Product name: Binder TFG 0905-4

9.1 Information on basic physical and chemical properties

Appearance: White paste. Odour: Slight odour. pH: 8.0 ± 0.5

Melting point:

Boiling point:

No data available.

No data available.

Flash point:

No data available.

Evaporation rate:

No data available.

Flammability: If this product is dry, it may be flammable.

Upper/lower flammability or explosive limits:

No data available.

Vapour pressure: No data available. Vapour density (air=1): No data available.

Relative density: 0.98 ± 0.05 Solubility: Miscible.

Partition coefficient:n-octano/water:

No data available.

Decomposition temperature: No data available.

Viscosity: $100,000 \pm 5,000 \text{ mPa} \cdot \text{s}$

Explosive Properties: Not applicable.

Oxidizing Properties: Not applicable.

SECTION 10. Stability and reactivity -

10.1 Reactivity No specific reactivity under normal condition.

10.2 Chemical stability Stable under normal handling and using condition.

10.3 Possibility of hazardous reaction

Nothing in particular.

10.4 Conditions to avoid Nothing in particular.10.5 Incompatible materials Nothing in particular.

10.6 Hazardous decomposition products

Nothing in particular.

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SECTION 11. Toxicological information -

Product name: Binder TFG 0905-4

11.1 Information on toxicological effects

Acute toxicity: Oral LD50 > 2,000 mg/kg (caluculation method)

Irritation:

Corrosivity:

No data available.

SECTION 12. Ecological information -

12.1 Toxicity

Acute toxicity: LC50 > 68 mg/L (caluculation method)

Chronic toxicity:

Fish: No data available.

Crustacea: No data available.

Algae/aquatic plants: No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential No data available.

12.4 Mobility in soil No data available.

12.5 Result of PBT and vPvB assessment

No data available.

12.6 Other adverse effects No data available.

SECTION 13. Disposal considerations -

13.1 Waste treatment method

Product/packaging disposal: Dispose of in accordance with local, national, and EU regulations.

Sewage disposal-releavant infomation:

Do not dump this product into sewers, on the ground or into any body of

water.

SECTION 14. Transport information -

14.1 UN No. Not applicable.
14.2 UN proper sipping name Not applicable.
14.3 UN Class Not applicable.
14.4 UN Packing Group Not applicable.
14.5 Environmental hazards Not applicable.

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14.6 Special precautions for user

Reffer to section 6 and 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No transport as bulk.

SECTION 15. Regulatory information -

15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

EU regulations

(EC) No. 2037/2000: Not applicable.(EC) No. 689/2008: Not applicable.(EC) No. 850/2004: Not applicable.

Product name: Binder TFG 0905-4

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16. Other information -

Classification acording to regulation (EC)No. 1272/2008 [CLP]:

Hazard class	Hazard category	H-statements	P-codes
the aquatic environment (chronic)	3	H412	P273 P501

See below for full text of H-statements and P-codes.

Label elements: None.

Full text of H-statements: H400; Very toxic to aquatic life.

H412; Harmful to aquatic life with long lasting effects.

Full text of P-codes: P273: Avoid release to the environment.

P501; Dispose of contents/container in accordance with local/regional/

national/international regulation.

Indication of changes: This updated MSDS has changed to adapt to Regulation (EU) No.

453/2010.

Abbreviations and acronyms:

CAS Chemical Abstracts Service number

CLP Classification Labelling Packaging Regulation; Regulation (EC)

No 1272/2008

IBC-Code International Code for the Construction and Equipment of Ships Carrying

Dangerous Chemicals in Bulk

LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

MARPOL The International Convention for the Prevention of Pollution from Ships

PBT Persistent, Bioaccumulative and Toxic substance

REACH Registration, Evaluation, Authorisation and Restriction of

Chemicals Regulation (EC) No 1907/2006

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vPvB Very Persistent and Very Bioaccumulative

Key literature references and sources for data:

Guidance on the compilation of safety data sheets

(Version 1.1 – December 2011)

Chemical Risk Information Platform (CHRIP:

http://www.safe.nite.go.jp/japan/db.html)

IUCLID Chemical Data Sheet

The information set forth herein is to the best knowledge and belief of MATSUI SHIKISO CHEMICAL CO., LTD. If not employed as directed, we do not guarantee that the hazard precautions or procedures mentioned above are the only ones which exist and we do not assume responsibility in case of unusual use of this product.