Safety Data Sheet

Identification of the substance and the supplier

Product Identification B513 Mr.スーパークリアー 光沢

Product Code W1011GF025

Manufacturer's name : GSI CREOS CORPORATION

Address : 2-3-1 KUDAN-MINAMI, CHIYODA-KU, TOKYO 102-0074, JAPAN

Business Group in Charge : Hobby Dept.

Contact Person : MANAGER OF HOBBY DEPT.

Phone and facsimile number for information : 03-5211-1805

Emergency Contact : 03-5211-1805

Classification of Product : Acrylic Coating

General Use : Coating for Plastics

Date prepared : 05/Mar/2015

2 Hazards identification

| [GHS Classification] | | [Classification categories] | [Hazard statements] |
|--|-------------------------------|-------------------------------|--|
| Flammable liquid | | Category 1 | Extremely flammable liquid and vapor |
| Acute toxicity | Oral | Not Categorized | |
| | Dermal | Not Categorized | |
| | Inhalation : Gas | Not Categorized | |
| | Inhalation : Vapor | Category 4 | Harmful if inhaled |
| | Inhalation : Dust and Mist | Not Categorized | |
| Skin corros | sion/Irritation | Category 2 | Causes skin irritation |
| Eye damag | e/Eye irritation | Category 2 | Causes serious eye irritation |
| Respiratory S | Sensitization Solid/Liquid | Not Categorized | |
| | Gas | Not Classifiable | |
| Skin Sensi | tization | Not Categorized | |
| Germ Cell Mutagenicity | | Category 1 | May cause genetic defects |
| Carcinogenicity | | Category 2 | Suspected of causing cancer |
| Reproducti | ive toxicity | | |
| Effects on or via lactation | | Not Classifiable | |
| Specific Target Organ/Systemic Toxicity (Single Exposure) | | Category 2 | May cause damage to organs (Central nervous system) |
| | | Category 3 | May cause respiratory irritation May cause drowsiness and dizziness |
| Specific Ta | arget Organ/Systemic | Category 1 | Causes damage to organs through prolonged or repeated exposure (Neural systems) |
| Toxicity (Sepeated Exposure) | | Category 2 | May cause damage to organs through prolonged or repeated exposure (Liver,Central nervous system,Peripheral nervous system,Auditory organ) |
| Aspiration | hazard | Not Categorized | |
| Hazard to the | aquatic environment (Acute) | Not Categorized | |
| Hazard to the a | aquatic environment (Chronic) | Not Classifiable | |
| Hazard to | the ozone layer | Not Classifiable | |

[Symbol]



Flame



Exclamation mark



Health Hazard

[Signal Word]

Danger

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[Precautionary Statement]

May be harmful in contact with skin, inhalation or ingestion.

- 1. Keep away from ignition sources and secure ventilation to work area.
- 2. Secure ventilation during coating and/or drying to avoid inhalation of vapor and/or mist.
- 3. Wear protective gloves, eye/face protection and long sleeved clothes to avoid skin contact.
- 4. If spilled or leaked, wipe with cloth and discard contaminated materials into a container which is filled with water.
- 5. Dip contaminated cloth, spray dust and/or mist into water until they are discarded properly.
- 6. Wash hands an gargle mouth thoroughly after handling.
- 7. Do not use this product other than the purpose specified by the manufacturer/supplier.
- 8. If feel unwell because of inhalation, remove to fresh air and keep at rest in a position comfortable for breathing, and call a physician.
- 9. If in eyes, rinse cautiously with water for several minutes and get medical attention. If swallowed, call a physician immediately.
- 10. If on skin, wash with plenty of soap and water, and get medical attention.
- 11. Wash off stains from clothes.
- 12. Extinguish fire with CO2 gas, foam and/or dry chemical extinguisher.
- 13. Close container tightly and store indoor and away from heat and rain. Protect from sunlight.
- 14. Keep reach out of children.
- 15. Content should be used up before disposal of container.
- 16. Container/content should be disposed in accordance with local, regional and national regulations.

3 Composition/Information on Ingredients

Single Substance • Mixture : Mixture

Hazardous Ingredients and Concentration

| Chemical Name | CAS No. | Content (%) |
|----------------------------------|----------|---------------|
| Ethanol | 64-17-5 | 1~5 |
| 2-Butanone | 78-93-3 | 1~5 |
| 1-Butanol | 71-36-3 | 5 ~ 10 |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2 | 5 ~ 10 |
| 2-Pentanone, 4-methyl- | 108-10-1 | 10~20 |
| Acetic acid ethyl ester | 141-78-6 | 1~5 |
| Acetic acid, butyl ester | 123-86-4 | 1~5 |
| Methane, oxybis- | 115-10-6 | 50~60 |

4 First-Aid measures

[If in Eyes]

·Wash eyes with plenty of water and in case of persistence of irritation, get medical attention.

[If on Skin]

•Wash with plenty of soap and water, and get medical attention immediately.

[If Inhaled]

•If feel unwell because of inhalation, remove to fresh air and keep at rest in a position comfortable for breathing, and call a physician.

[If Swallowed]

•Call a physician immediately.

5 Fire-Fighting measures

<u>Suitable extinguishing Water[] CO2[*] Foam[*] Dry chemical[*] Dry sand[*]</u>

Fire fighting method

- •Wear proper protective clothes such as heat insulating clothes/gloves/face shield and/or eye protection.
- •Use specified extinguishing media.
- Remove combustible material from surrounding area.
- Start fire fighting from windward
- •Do not use water as the extinguishing media.

6 Accidental release measures

- •Avoid contact with skin. Wear appropriate protective equipment (protective gloves, eye/face protection, apron and long sleeved clothes) when handling spill of this product.
- •Wear protective equipment and collect spillage into air-tight container that can be tightly closed. Move the container to a safe place.
- •Dispose contaminant and waste in accordance with regulations relative to disposal.
- Eliminate all ignition sources such as heat, sparks, open flames and combustible materials.
- •Provide appropriate extinguisher to prepare for fire.
- •Do not use steel tools as it may cause impact sparks. Tool should be static free.
- Absorb with dry sand, earth or noncombustible material. In case of large spill, hold back with earth to prevent spreading.

•Avoid release to rivers to prevent effect to environment.

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7 Handling and storage

[Cautions on Handling]

- •May cause poisoning if on skin or inhaled.
- Keep away from ignition sources such as heat/sparks/open flame, and ventilate work area when handling this product.
- •Ventilate work area to prevent inhalation of vapor/fume/spray/dust.
- Avoid contact with skin. Wear protective gloves, eye/face protection and long sleeved clothes if necessary.
- •If spilled or leaked, wipe with cloth and discard contaminated materials into a container which is filled with water.
- •Dip contaminated cloth, spray dust and/or mist into water until they are discarded properly.
- After use, wash hands and gargle mouth thoroughly.
- •Do not use this product other than the purpose specified by the manufacturer/supplier.

[Cautions on Storage]

- •Keep container tightly closed. Store in cool and ventilated indoor place. Protect from direct sun light.
- •Keep reach out of children.
- •Keep away from flame or heat sources.

8 Exposure Controls/Personal Protection

[Facilities Recommendation]

- •All facilities should be explosion proof.
- •Prevent vapor from retention by installation of a proper ventilator.
- Ground/bond container or receiving equipment for transportation, mixing and/or transferring of this product.
- •Do not locate heat/flame generating facilities close to the work area.
- •If spray indoor, install coating facilities so that workers are protected from direct exposure to spray mist, or install adequate ventilation.
- For handling in closed tanks, install appropriate ventilator which secures ventilation to the bottom of the tank. [Protective Equipments]
- · Respiratory Protection: Wear gas mask for organic gas. Wear self-contained breathing apparatus in case of operation in closed areas.
- •Eye Protection: Wear goggle type of eye protection.
- Skin Protection: Wear appropriate gloves which is impervious to organic solvents and chemicals.
- •Other Protection: Work clothes specified by the manufacturer or supplier, and safety shoes.

Threshold Limit of Ingredient

| Substance name | JOHSC | ACGIH(TLVs-TWA) |
|----------------------------------|--------------------------|-------------------|
| Ethanol | No data available | 1000ppm |
| 2-Butanone | 200ppm 590mg/m3 | 200ppm |
| 1-Butanol | 50ppm(Max) 150mg/m3(Max) | 20ppm |
| 2-Pentanone, 4-hydroxy-4-methyl- | No data available | 50ppm |
| 2-Pentanone, 4-methyl- | 50ppm 200mg/m3 | 20ppm |
| Acetic acid ethyl ester | 200ppm 720mg/m3 | 400ppm |
| Acetic acid, butyl ester | 100ppm 475mg/m3 | 150ppm |
| Methane, oxybis- | No data available | No data available |
| | | |

* JOHSC: Japan Occupational Health Service Centre

9 Physical and Chemical Properties

Form Liquid[*] Gas[] Solid[] Color: CLEAR Solubility: No data available

Odor: Solvent odor Explosion Limits: 1.2vol% (Lower) Octanol-Water

pH: Not Applicable 26.7vol% (Upper) Partition Coefficient: No data available

Melting Point: No data available Vapor Ignition Point: 345°C

Boiling Point: -23.6°C Pressure: 12000Pa(20°C) Decomposition

Flash Point: -31.5°C Vapor Density: No data available Temperature: No data available Density: 0.750±0.100g/cm3 Other: None particular

10 Stability and Reactivity

[Reactivity Information]

- •Materials to be avoided: Keep away from strong oxides and/or peroxides that will cause polymerization and/or generate heat or fire by mixing or contact.
- Hazardous thermal decomposition products: CO, CO2, HCl, vapors of solvents.
- •Other reactivity information: None.

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11 Toxicological Information

| Health Hazard Information on Ingredient Tab | le | abl | Ta | nt | ngredient | on I | Information | Hazard | Health |
|---|----|-----|----|----|-----------|------|-------------|--------|--------|
|---|----|-----|----|----|-----------|------|-------------|--------|--------|

| Acute toxicity (LD50, LC50, etc.) | | | | | |
|-----------------------------------|--|---|---|--|--|
| Oral | Dermal | Inhalation (Gas) | Inhalation (Vapor) | Inhalation (Dust, Mist) | |
| Not Categorized | Not Categorized | Not Applicable | Not Categorized | Not Classifiable | |
| >5,000mg/kg | >20,000mg/kg | | 20661ppm | | |
| Not Categorized | Not Categorized | Not Applicable | Category 4 | Not Classifiable | |
| 2483mg/kg | >5、000mg/kg | | 11700ppm | | |
| Category 4 | Not Categorized | Not Applicable | Not Categorized | Not Classifiable | |
| 1227mg/kg | 3636 mg/kg | | | | |
| Not Categorized | Not Categorized | Not Applicable | Not Classifiable | Not Classifiable | |
| 4000mg/kg | 13500mg/kg | | | | |
| Not Categorized | Not Categorized | Not Applicable | Category 3 | Not Classifiable | |
| 2080mg/kg | >16,000mg/kg | | 2000ppm | | |
| Not Categorized | Not Categorized | Not Applicable | Category 4 | Not Classifiable | |
| 4940mg/kg | >18,000mg/kg | | 14640ppm | | |
| Not Categorized | Not Categorized | Not Applicable | Category 3 | Category 3 | |
| 14130mg/kg | | | 2000ppm | 0.74mg/l | |
| Not Classifiable | Not Classifiable | Not Categorized | Not Applicable | Not Applicable | |
| | | 164000ppmV | | | |
| | Not Categorized >5, 000mg/kg Not Categorized 2483mg/kg Category 4 1227mg/kg Not Categorized 4000mg/kg Not Categorized 2080mg/kg Not Categorized 4940mg/kg Not Categorized 4130mg/kg Not Categorized 14130mg/kg | Oral Dermal Not Categorized Not Categorized >5, 000mg/kg >20, 000mg/kg Not Categorized Not Categorized 2483mg/kg >5, 000mg/kg Category 4 Not Categorized 1227mg/kg 3636mg/kg Not Categorized Not Categorized 4000mg/kg 13500mg/kg Not Categorized Not Categorized 2080mg/kg >16, 000mg/kg Not Categorized Not Categorized 4940mg/kg >18, 000mg/kg Not Categorized Not Categorized 4940mg/kg >18, 000mg/kg Not Categorized Not Categorized 4940mg/kg Not Categorized 14130mg/kg | Oral Dermal Inhalation (Gas) Not Categorized Not Categorized Not Applicable >5, 000mg/kg >20, 000mg/kg Not Categorized Not Categorized Not Applicable 2483mg/kg >5, 000mg/kg Category 4 Not Categorized Not Applicable 1227mg/kg 3636mg/kg Not Categorized Not Categorized Not Applicable 4000mg/kg 13500mg/kg Not Categorized Not Categorized Not Applicable 2080mg/kg >16, 000mg/kg Not Categorized Not Categorized Not Applicable 4940mg/kg >18, 000mg/kg Not Categorized Not Categorized Not Applicable 4940mg/kg >18, 000mg/kg Not Categorized Not Categorized Not Applicable 4940mg/kg >18, 000mg/kg Not Categorized Not Categorized Not Applicable 4940mg/kg Not Categorized Not Applicable 14130mg/kg Not Classifiable Not Classifiable Not Categorized | Oral Dermal Inhalation (Gas) Inhalation (Vapor) Not Categorized Not Categorized Not Applicable Not Categorized >5, 000mg/kg >20, 000mg/kg 20661ppm Not Categorized Not Applicable Category 4 2483mg/kg >5, 000mg/kg 11700ppm Category 4 Not Categorized Not Applicable Not Categorized 1227mg/kg 3636mg/kg Not Applicable Not Classifiable 4000mg/kg 13500mg/kg Not Applicable Category 3 2080mg/kg >16, 000mg/kg 2000ppm Not Categorized Not Applicable Category 4 4940mg/kg >18, 000mg/kg 14640ppm Not Categorized Not Applicable Category 3 | |

Health Hazard Information on Ingredient Table 2

| Substance name | Skin Corrosion Irritation | Serious Damage to Eyes /Eye Irritation | Respiratory Sensitization | Skin Sensitization | Germ Cell Mutagenicity | Carcinogenicity |
|----------------------------------|---------------------------|--|---------------------------|--------------------|------------------------|------------------|
| Ethanol | Not Categorized | Category 2B | Not Classifiable | Not Classifiable | Category 1B | Not Classifiable |
| 2-Butanone | Category 2 | Category 2B | Not Classifiable | Not Classifiable | Not Categorized | Not Categorized |
| 1-Butanol | Category 2 | Category 2A | Not Classifiable | Not Classifiable | Not Categorized | Not Categorized |
| 2-Pentanone, 4-hydroxy-4-methyl- | Category 2 | Category 2A | Not Classifiable | Not Classifiable | Not Classifiable | Not Classifiable |
| 2-Pentanone, 4-methyl- | Not Categorized | Category 2B | Not Classifiable | Not Categorized | Not Categorized | Category 2 |
| Acetic acid ethyl ester | Not Categorized | Category 2B | Not Classifiable | Not Categorized | Not Categorized | Not Classifiable |
| Acetic acid, butyl ester | Not Categorized | Category 2B | Not Classifiable | Not Categorized | Not Classifiable | Not Classifiable |
| Methane, oxybis- | Not Classifiable | Not Classifiable | Not Classifiable | Not Classifiable | Not Classifiable | Not Classifiable |

Health Hazard Information on Ingredient Table 3

| Substance name | Reproductive toxicity | Specific Target Organ (Single Exposure) |
|----------------------------------|-----------------------|---|
| Ethanol | Category 1A | |
| 2-Butanone | Not Categorized | |
| 1-Butanol | Not Categorized | |
| 2-Pentanone, 4-hydroxy-4-methyl- | Category 2 | |
| 2-Pentanone, 4-methyl- | Not Categorized | |
| Acetic acid ethyl ester | Not Classifiable | |
| Acetic acid, butyl ester | Not Classifiable | |
| Methane, oxybis- | Not Classifiable | |

Health Hazard Information of Ingredient Table 4

| Substance name | Specific Target Organ (Repeat Exposure) | Aspiration Respiratory Toxicity |
|----------------------------------|---|---------------------------------|
| Ethanol | | Not Classifiable |
| 2-Butanone | | Not Categorized |
| 1-Butanol | | Not Categorized |
| 2-Pentanone, 4-hydroxy-4-methyl- | Not Classifiable | Not Classifiable |
| 2-Pentanone, 4-methyl- | | Not Classifiable |
| Acetic acid ethyl ester | Not Classifiable | Not Classifiable |
| Acetic acid, butyl ester | Not Classifiable | Not Classifiable |
| Methane, oxybis- | Not Classifiable | Not Classifiable |

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12 Ecological information

Aqueous Milieu Hazard Information on Ingredient

| Substance name | Hazardous to Aquatic Environment (Acute) | Hazardous to Aquatic Environment (Chronic) |
|----------------------------------|--|--|
| Ethanol | Not Categorized | Not Categorized |
| 2-Butanone | Not Categorized | Not Categorized |
| 1-Butanol | Not Categorized | Not Categorized |
| 2-Pentanone, 4-hydroxy-4-methyl- | Not Categorized | Not Categorized |
| 2-Pentanone, 4-methyl- | Not Categorized | Not Categorized |
| Acetic acid ethyl ester | Not Categorized | Not Categorized |
| Acetic acid, butyl ester | Category 3 | Not Categorized |
| Methane, oxybis- | Not Categorized | Not Categorized |

13 Disposal Considerations

- ·Content should be used up before disposal of container.
- Container/content should be disposed in accordance with local, regional and national regulations.

14 Transport Information

General Information: Follow general instructions described in the "Precautions on Handling and Storage".

Transportation must be done in accordance with the appropriate regulations in case this Ground Transportation: product falls under a category of regulations such as Fire Service Law (Japan), Industrial

Safety and Health Law (Japan), etc.

Marine Transportation: Comply stipulation of appropriate maritime regulations.

Air Transportation: Comply stipulations of appropriate air transportation regulations.

UN Number: 1950

15 Regulatory Information

Industrial Safety and Health Law (Japan) : Contains indicative/notifiable substance, Dangerous goods (Inflammable Liquid)

: 2nd Special chemical substances included.

Ordinance on Prevention of Organic

Solvent Poisoning

: Contains Category II organic solvent

Pollutant Release and Transfer Register

: Does not contain any categorized chemical substance. : 1st Petroleum Group in Class 4 Hazardous Materials, Hazard Class II

Fire Service Law (Japan)

: Inflammable Liquid, Low Flash Point Group

Ship Safety Law (Japan) Aviation Law

: Inflammable Liquid

16 Other Information

[Bibliography]

- Guide Book for Preparation of MSDS and Labeling to Comply with GHS (Japan Paint Manufacturers Association)
- Model MSDS and Case Example of Labeling (Japan Paint Manufacturers Association)
- Raw Material Data Base (Japan Paint Manufacturers Association)
- Globally Harmonized System of Classification and Labeling of Chemicals
 - (Communications Conference of GHS related Ministries and Agencies)
- Chemical Risk Information Platform (National Institute of Technology and Evaluation)

Japan Advanced Information Centre of Safety

(Japan Industrial Safety and Health Association)

- •International Programme on Chemical Safety (IPCS)
- International Chemical Safety Cards (ICSC)
- Handbook on Risk Preventive First Aids
- Pocket Book on Solvents

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