

Safety Data Sheet

1 Identification of the substance and the supplier

Product Identification **Mr.サファイサー-500 (SF285)**

Product Code W1011GE018

Manufacturer's name : GSI CREOS CORPORATION
 Address : 2-3-1, KUDAN-MINAMI, CHIYODA-KU, TOKYO, 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 : 01/Mar/2015

2 Hazards identification

[GHS Classification]	[Classification categories]	[Hazard statements]	
Flammable liquid	Category 2	Highly flammable liquid and vapor	
Acute toxicity	Oral	Not Categorized	
	Dermal	Not Categorized	
	Inhalation : Gas	Not Classifiable	
	Inhalation : Vapor	Category 3	Toxic if inhaled
	Inhalation : Dust and Mist	Not Categorized	
Skin corrosion/Irritation	Category 2	Causes skin irritation	
Eye damage/Eye irritation	Category 2	Causes serious eye irritation	
Respiratory Sensitization Solid/Liquid	Not Categorized		
	Gas	Not Classifiable	
Skin Sensitization	Not Categorized		
Germ Cell Mutagenicity	Category 1B		
Carcinogenicity	Category 2	Suspected of causing cancer	
Reproductive toxicity	Category 1	May damage fertility or the unborn child	
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 Target Organ/Systemic Toxicity (Sepeated Exposure)	Category 1	Causes damage to organs through prolonged or repeated exposure (Neural systems)	
	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)	Category 3	Harmful to aquatic life	
Hazard to the aquatic environment (Chronic)	Category 3	Harmful to aquatic life with long lasting effects	
Hazard to the ozone layer	Not Classifiable		

[Symbol]



Flame



Skull and crossbones



Health Hazard

[Signal Word]

Danger

[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 and 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
Titanium oxide (TiO ₂)	13463-67-7	10~20
Silicon dioxide	7631-86-9	Less 1
2-Pentanone, 4-methyl-	108-10-1	20~30
Acetic acid, butyl ester	123-86-4	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

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

Suitable extinguishing Water[] CO₂[*] Foam[*] Dry chemical[*] Dry sand[*]

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.

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
Titanium oxide (TiO ₂)	No data available	10mg/m ³
Silicon dioxide	No data available	0.1mg/m ³
2-Pentanone, 4-methyl-	50ppm 200mg/m ³	20ppm
Acetic acid, butyl ester	100ppm 475mg/m ³	150ppm
2-Butanone	200ppm 590mg/m ³	200ppm
1-Butanol	50ppm(Max) 150mg/m ³ (Max)	20ppm
2-Pentanone, 4-hydroxy-4-methyl-	No data available	50ppm

* JOHSC : Japan Occupational Health Service Centre

9 Physical and Chemical Properties

Form Liquid[*] Gas[] Solid[]	Color: WHITE	Solubility: No data available
Odor: Solvent odor	Explosion Limits: 1.2vol% (Lower)	Octanol-Water
pH: Not Applicable	19.0vol% (Upper)	Partition Coefficient: No data available
Melting Point: No data available	Vapor	Ignition Point: 345°C
Boiling Point: 78.3°C	Pressure: 12000Pa(20°C)	Decomposition
Flash Point: 17.1°C	Vapor Density: No data available	Temperature: No data available
	Density: 1.100±0.100g/cm ³	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.

11 Toxicological Information

Health Hazard Information on Ingredient Table 1

Substance name	Acute toxicity (LD50, LC50, etc.)				
	Oral	Dermal	Inhalation (Gas)	Inhalation (Vapor)	Inhalation (Dust, Mist)
Ethanol	Not Categorized >5,000mg/kg	Not Categorized >20,000mg/kg	Not Applicable	Not Categorized 20661ppm	Not Classifiable
Titanium oxide (TiO ₂)	Not Categorized	Not Categorized	Not Applicable	Not Classifiable	Not Categorized
Silicon dioxide	Category 5 3160mg/kg	Not Classifiable	Not Applicable	Not Classifiable	Not Classifiable
2-Pentanone, 4-methyl-	Not Categorized 2080mg/kg	Not Categorized >16,000mg/kg	Not Applicable	Category 3 2000ppm	Not Classifiable
Acetic acid, butyl ester	Not Categorized 14130mg/kg	Not Categorized	Not Applicable	Category 3 2000ppm	Category 3 0.74mg/l
2-Butanone	Not Categorized 2483mg/kg	Not Categorized >5,000mg/kg	Not Applicable	Category 4 11700ppm	Not Classifiable
1-Butanol	Category 4 1227mg/kg	Not Categorized 3636mg/kg	Not Applicable	Not Categorized	Not Classifiable
2-Pentanone, 4-hydroxy-4-methyl-	Not Categorized 4000mg/kg	Not Categorized 13500mg/kg	Not Applicable	Not Classifiable	Not Classifiable

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
Titanium oxide (TiO ₂)	Not Categorized	Category 2B	Not Classifiable	Not Classifiable	Not Categorized	Category 2
Silicon dioxide	Not Classifiable	Not Classifiable	Not Classifiable	Not Classifiable	Not Classifiable	Not Categorized
2-Pentanone, 4-methyl-	Not Categorized	Category 2B	Not Classifiable	Not Categorized	Not Categorized	Category 2
Acetic acid, butyl ester	Not Categorized	Category 2B	Not Classifiable	Not Categorized	Not Classifiable	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

Health Hazard Information on Ingredient Table 3

Substance name	Reproductive toxicity	Specific Target Organ (Single Exposure)
Ethanol	Category 1A	
Titanium oxide (TiO ₂)	Not Classifiable	Not Classifiable
Silicon dioxide	Not Classifiable	Not Classifiable
2-Pentanone, 4-methyl-	Not Categorized	
Acetic acid, butyl ester	Not Classifiable	
2-Butanone	Not Categorized	
1-Butanol	Not Categorized	
2-Pentanone, 4-hydroxy-4-methyl-	Category 2	

Health Hazard Information of Ingredient Table 4

Substance name	Specific Target Organ (Repeat Exposure)	Aspiration Respiratory Toxicity
Ethanol		Not Classifiable
Titanium oxide (TiO ₂)	Not Classifiable	Not Classifiable
Silicon dioxide	Not Classifiable	Not Classifiable
2-Pentanone, 4-methyl-		Not Classifiable
Acetic acid, butyl ester	Not Classifiable	Not Classifiable
2-Butanone		Not Categorized
1-Butanol		Not Categorized
2-Pentanone, 4-hydroxy-4-methyl-	Not Classifiable	Not Classifiable

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
Titanium oxide (TiO ₂)	Not Classifiable	Not Classifiable
Silicon dioxide	Not Classifiable	Not Classifiable
2-Pentanone, 4-methyl-	Not Categorized	Not Categorized
Acetic acid, butyl ester	Category 3	Not Categorized
2-Butanone	Not Categorized	Not Categorized
1-Butanol	Not Categorized	Not Categorized
2-Pentanone, 4-hydroxy-4-methyl-	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: 1263

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.

Fire Service Law (Japan) : 1st Petroleum Group in Class 4 Hazardous Materials, Hazard Class II

Ship Safety Law (Japan) : Inflammable Liquid, Intermediate Flash Point Group

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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