SAFETY DATA SHEET

Effective Date 2014/11/4

1. Identification

＊ Product name Quick-Drying Varnish
JPMA F☆☆☆☆ Reg. No. W02001

＊ Reference number 23201
＊ Company Washin Paint Co.,Ltd.
＊ Company address 2100-18 Kamiyoshiba Satte-shi Saitama-ken 340-0121 Japan
＊ Section concerned Production engineering department
＊ Person in change Takeyuki Kawashima
＊ Phone No. 0480-48-2021
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＊ Product kind Nitrocellulose lacquer
＊ Principal use Wood paint

2. Hazards identification

[Classification]

Hazards	Category	Signal word
	Hazard statement	
Flammable liquids	Category 3	Warning
	flammable liquid and vapour.	
Acute toxicity Oral	Not classified	
Acute toxicity Dermal	Not classified	
Acute toxicity Gasas	Not applicable	
Acute toxicity Vapours	Category 4	Warning
	Harmful if inhaled.	
Acute toxicity Mists	Category 4	Warning
	Harmful if inhaled.	
Skin corrosion/irritation	Not classified	
Serious eye damage/eye irritation	Category 2	Warning
	Causes serious eye irritation.	
Respiratory sensitization	Not classified	
Skin sensitization	Category 1	Warning
	May cause an allergic skin reaction.	
Germ cell mutagenicity	Category 2	Warning
Carcinogenicity	Not classified	
Reproductive toxicity	Not classified	
Specific target organ systemic toxicity Single exposure	Category 2	Warning
	May causes damage to organs or state all organs affected if known.	
Specific target organ systemic toxicity Repeated exposure	Category 2	Warning
	May causes damage to organs state all organs affected, if known through prolonged or repeated exposure.	
Aspiration hazard	Not classified	
Hazardous to aquatic environment Acute	Category 3	
	Harmful to aquatic life.	
Hazardous to aquatic environment Chronic	Not classified	
Hazardous to the ozone layer	Not classified	

＊ If the signal word "Danger" applies, the signal word "Worning" should not appear.
＊ For the details with "Specific target organ systemic toxicity", refer to "11.Toxicological information".

[Symbol]

Flame Exclamation mark Health hazard

[Precautionary statement]

(Prevention)

* Obtain and understand special instructions before use.
* Keep away from ignition sources such as heat/sparks/open flame. - No smoking.
* Store container tightly and avoid release to the environment.
* Prevent the electro static discharge. Ground a container/carrier receptacle and so on.
* Use the tools that sparks don't come out.
* Avoid breathing vapours/mist/spray.
* Don't eat, drink or smoke when using this product.
* Wear protective gloves and eye/face protection when it needs.
* Wash hands thoroughly and gargle after handling.

(Response)

* In case of fire, use carbon dioxide/powder/foams for extinction.
* If inhaled: Remove to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice/attention if you feel unwell.
* If in eyes: Rince cautiously with water, get medical advice/attention.
* If on skin or cloth: Wash with plenty of soap and water. Take off contaminated clothing and exchange it.
* If skin irritation occurs, seek medical advice/attention.
* If exposed or concerned: Get medical attention/advice.

(Strage)

* Store container tightly closed in the place which well-ventilated, cool and child doesn't reach.

(Disposal)

* Don't dispose contents to the river and the sewage. Dispose after using them up.
* Dispose container in accordance with local/regional/national regulation. Don't use another purpose.

3. Composition/information on ingradients

Property Mixture
Product kind Nitrocellulose lacquer

Chemical name	Weight (%)	CAS No.	Chemical structure	Notice duty
cyclohexanone	1～5	108-94-1	C6H10O	○
2-propanol	1～5	67-63-0	C3H7OH	○
nitrocellulose	1～5	9004-70-0	－	○
1-butanol	5～10	71-36-3	C4H9OH	○
n-butyl acetate	60～70	123-86-4	C6H12O2	○

4. First-aid measures

(When swallowing)

* Without making vomit by force, be rested and have a medical attention.
* The vomit doesn't make swallow. Get medical attention.

(When inhaling)

* Do the artificial respiration in case of breathing's being irregular or stopping.
* The vomit doesn't make swallow.
* Remove to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice/attention if you feel unwell.

(When adhering to the skin)

* Wipes up quickly with cloth and washes it off sufficiently using plenty of water and soap. Don't use organic solvent, thinner and so on.
* If you get damage or feel pain, seek medical advice/attention.

(When entering eyes)
* Wash for more than 15 minutes with a plenty of water at once.
* Get a medical attention as fast as possible.

5. Fire-fighting measures
(Suitable extinguishing media)
* Water ( ), Carbon dioxide (○), Foams (○), Powder (○), Dry sand ( ), Other ( ),
(Specific hazards arising from the chemical)
* Liquid and vapour are extremely flammable.
If they expose to heat, flame and an oxidizer, there is danger of intense fire.
* When heated, there is a fear of intense bust of container by expansion or resolution.
* When burning, there is possibility to make carbon monoxide occur.
(Specific extinguishing method)
* Tell Fire Service the place and the dangerous/hazardous property.
* Prevent outflow being in water pipe or watercourse.
* Wear respiratory-protective-equipment and protective-glove.
* Remove combustibles quickly from the surrounding area.
* Uses the suitable extinguishing media.
* Do fire fighting from the windward.
(Special protective equipmemt and precautions for fire-fighters)
* Wear respiratory-protective-equipment, chemical-defense clothes/glove/boots,/glasses/mask as occasion demands.

6. Accidental release measures
(Personal precautions, protective equipment and emargency prosedures)
* Lead personnel to the windward from outflow areas.
* Avoid the inhalation of vapour. Avoid the contact to the skin and eyes. Promote ventilation.
* Wear protective equipments (gloves, protective mask, apron and goggles).
(Environmental precautions)
* Prevent outflow being in water pipe or watercourse.
* When water pipe or watercourse are polluted, contact organs concerned.
(Methods and materials for containment and cleaning up)
* Remove ignition sources. Prohibit smoking and fire. Use the tools which don't spark.
* Collects outflow to the container which can be shut, and move it to the safe place.
* Prevent outflow using dry sand, earth or other imcombustible material, and make absorb residue to collect it.
* It may use water sprayer to absorb the diffusion of vapour.
* Dispose wastes based on the regurations concerned.

7. Handling and storage
(Handring: Technical measure)
* Handle this based on the related laws (Industrial Safety and Health Law, Fire Defense Law, etc.).
* Forrow the operation-standard, keep working atmosphere below TLV, promote ventilation.
* When in working, wear antistatic work clothing, shoes.
* Remove ignition sources, prohibit smoking and fire, Use tools which don't spark.
* Ground equipments (transport, dip, stirring liquid) and use explosion-proof type electric equipments.
* After handling, wash hands with soap water. It should wash work clothing separately.
(Handring: Notice)
* Ground equipments and use explosion-proof type electric equipments.
* Avoid contact with strong oxidizing reagent.
* It has a fear of causing a reaction by heating, acidic material and alkaline material.
* Use the container which has no damage, no corrosion and no breakage.
* Gather used containers to the decided safekeeping place.
(Storage)
* Follow the Fire Defense Law and so on because of flammable liquid.
* Store container tightly closed in the place which well-ventilated and cool.

8. Exposure controls/personal protection

Standard control concentration, threshold limit value etc.

(Control parameters e.g. occupational exposure limit values or biological limit values)

Chemical name	Standard control concentration	Tthreshold limit value	ACGIH (TWA)	PRTR
cyclohexanone	20ppm	25ppm	20ppm	—
2-propanol	200ppm	400ppm	200ppm	—
nitrocellulose	—	—	3mg/m3	—
1-butanol	25ppm	50ppm	20ppm	—
n-butyl acetate	150ppm	100ppm	150ppm	—

〔Equipment measure〕

* Set up sealed systems or local ventilation systems.
* Set up safe shower, bathroom and face washing near the work area, and display the position.
* Show the signs such like "INFRAMABLES" or "NO UNAUTHORIZED ENTRY".
* When handling flammable liquid, there needs explosion-proof type ventilation equipments/systems.

(Protection measure)

* As occasion demands, wear following guards appropriately.
  air-supplied respirator, air SCBA, oxygen SCBA, chemical-cartridge respirator,
  protective glasses, protective gloves, protective boots, protective clothing,
* Check protective equipments regularly by the check list.
* Don't eat, drink or smoke when using this product.
* Wash hands with soap before eat, drink or smoke.
* The person who showed the symptom of the asthma once should not contact this chemical because he may cause the same symptom.
* Contact lens bring about special harm.
  Don't use soft contact lens because it absorbs irritant and has possibility to concentrate them.
* Wear chemical-proof type protective gloves and antistatic protective shoes.

9. Physical and chemical properties

(Physical state: Liquid)

Colour	Transparent pale yellow		Density	0.95	Flash point	28	℃
Odour	Solvent odour		PH	Not correspond	Ignition point	347	℃
Boiling point Lower	118	℃	Solbility	Not sol. In water	Flammability or explosive limits		
Boiling point Upper	126	℃	Partiton coefficient n-octanol/water		Lower	1.5	%
Vapour pressure	2000	Pa (ref.)		No data	Upper	15	%

10. Stability and reactivity

(Chemical stability)

* The product seems to be stable.
* It has a possibility of the dangerous/harmful reaction.
* It reacts to the oxidizing materials.
* No other reactions were informed.

(Conditions to avoid)

* Heating, Contact with the avoidance, Ignition source.
* Degradation product which has dangerous/hazardous property.
* Vapour of organic solvent.
* Heat, light, metal powder and peroxide.

11. Toxicological information

Chemical name	Acute toxicity			
	Oral	Dermal	Gasas	Vapours
cyclohexanone	Category 4	Category 3	Not applicable	Category 3
2-propanol	Not classified	Not classified	Not applicable	Not classified
nitrocellulose	Not classified	Classification not possible	Not applicable	Classification not possible
1-butanol	Category 4	Not classified	Not applicable	Not classified
n-butyl acetate	Not classified	Not classified	Not applicable	Category 3

Chemical name	Acute toxicity Mists	Skin corrosion/ irritation	Serious eye damage/	Respiratory sensitization
cyclohexanone	Not classified	Category 2	Category 2A	Classification not possible
2-propanol	Classification not possible	Not classified	Category 2A-2B	Classification not possible
nitrocellulose	Classification not possible	Classification not possible	Classification not possible	Classification not possible
1-butanol	Classification not possible	Category 2	Category 2A	Classification not possible
n-butyl acetate	Category 3	Not classified	Category 2B	Classification not possible

Chemical name	Skin sensitization	Germ cell mutagenicity	Carcinogenicity	Reproductive toxicity
cyclohexanone	Category 1	Category 2	Not classified	Category 2
2-propanol	Classification not possible	Not classified	Not classified	Category 2
nitrocellulose	Classification not possible	Classification not possible	Classification not possible	Classification not possible
1-butanol	Classification not possible	Not classified	Not classified	Not classified
n-butyl acetate	Not classified	Classification not possible	Classification not possible	Classification not possible

Chemical name	Specific target organ systemic toxicity		Aspiration hazard
	Single exposure	Repeated exposure	
cyclohexanone	Category 1, 2, 3	Category 1	Classification not possible
2-propanol	Category 1, 3	Category 2	Category 2
nitrocellulose	Category 3	Classification not possible	Classification not possible
1-butanol	Category 3	Category 1	Category 2
n-butyl acetate	Category 2	Classification not possible	Classification not possible

＊ Hazards information is peculiar to the chemicals. It doesn't change according to the content.

12. Ecological information

Chemical name	Hazardous to aquatic environment	
	Acute	Chronic
cyclohexanone	Not classified	Not classified
2-propanol	Not classified	Not classified
nitrocellulose	Not classified	Not classified
1-butanol	Not classified	Not classified
n-butyl acetate	Category 3	Not classified

＊ Hazards information is peculiar to the chemicals. It doesn't change according to the content.

＊ Residual property/resolvability There are not data as a mixture.
＊ Creature accumulation characteristics There are not data as a mixture.
＊ Movement degree in the soil There are not data as a mixture.

13. Disposal consideration

＊ Requests disposal to the agency who has solid-waste-treatment license.
＊ When disposing container, dispose after removing a content fully.
＊ Dispose of contents/container in accordance with local/regional/national regulation.

14. Transport information

(National regulation)

＊ UN number 1263
＊ Guideline number 128
＊ Land transportation Follow the transporting way to be specified in the Industrial Safety and Health Law. Fire Defense Law and so on.
＊ Air transportation Follow the transporting way to be specified in the Aviation Law.
＊ Marine transpotation Follow the transporting way to be specified in the Ship Safety Law.
＊ Fire Defense Law Annex class 4-2 Danger class Ⅲ

(International regulation)

＊ UN number 1263
＊ UN proper shipping name PAINT
＊ UN classification Class 3 Flammable liquid

(Special precautions)

* In case of transportation, carry "transportation notice" or "Yellow Card".
* Confirm container tightly closed and no leaking before transportation.
* In case of transportation, fix a container tightly and use buffering one as occasion demands.

15. Regulatory information

* Industrial Safety and Health Law

Dangerous goods	Flammable liquid
Ordinance on the Prevention of Organic Solvent Poisoning	Class-2
Ordinance on Prevention of Lead Poisoning	Not applicable
Ordinance on Prevention of Hazards due to Specified Chemical Substances	Not applicable

* Pollutant Release and Transfer Register Law	Not listed
* Poisonous and Deleterious Substances Control Law	Not applicable
* Fire Defense Law	Annex class 4-2
* Ship Safety Law	Flammable liquid
* Offensive Odor Control Low	Not listed

16. Other information

(Main reference)

* National Institute of Tecnology and Evaluation Opend data
* Japan Paint Manufacturers Association
  Raw material data base
  The guide book for the creating SDS and label [mixture (paint)] Second edition
  Model MSDS and label samples [mixture (paint)]
* Japan Industrial Safety and Health Association
  The OJT text for the MSDS of mixture (chemicals) by GHS compatible
* "YOZAI Pocket Book"
* "KIKEN BOSAI KYUKYU BINRAN"
* International Chemical Safety Cards (ICSC)
* SDS of raw materials

(Notice)

* This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only.
* It should not therefore be construed as guaranteeing any specific property of the product.
* In case of use, set a safe conditions for handling.
* All chemicals have possibility of unknown hazards, so it needs a due attention for handling.
* Applicable scope of this document is only in Japan.