SAFETY DATA SHEET

Effective Date 2019/2/19

1. Identification

* Product name Lacquer Thinner

* Reference number 21101

* 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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* Emergency contact 0480-48-2021
* Product kind Thinner
* Principal use Wood paint

2. Hazards identification

[Classification]

	Category	Signal word	
Hazards	Hazard statement		
Flammable liquids	Category 2	Danger	
^	Highly flammable liquid and vapour.		
Acute toxicity Oral	Not classified		
	Not aloogified		
Acute toxicity Dermal	Not classified		
Acute toxicity Gasas	Not applicable		
Acute toxicity Gasas			
Acute toxicity Vapours	Not classified		
reductionicity vapours			
Acute toxicity Mists	Classification not possible		
	Cata marra 9	W	
Skin corrosion/irritation	Category 2 Causes skin irritation.	Warning	
	Category 2	Warning	
Serious eye damage/eye irritation	Causes serious eye irritation.	warning	
	Classification not possible		
Respiratory sensitization	Classification not possible		
CI:	Not classified		
Skin sensitization			
Commodil mutagenicity	Not classified		
Germ cell mutagenicity			
Carcinogenicity	Category 2	Warning	
Carcinogenicity	Suspected of cancer.		
Reproductive toxicity	Category 1	Danger	
	May damage fertility or the unborn child.		
Specific target organ systemic toxicity	Category 1	Danger	
Single exposure	Causes damage to organs or state all organs	s affected if known.	
Specific target organ systemic toxicity	Category 1	Danger	
Repeated exposure	Causes damage to organs state all organs affected, if known		
Aspiration hazard	Category 1	Danger	
-	May be fatal if swallowed and enters airways.		
Hazardous to aquatic environment	Category 1	Warning	
Acute	Very toxic to aquatic life.		
Hazardous to aquatic environment	Category 3		
Chronic	Harmful to aquatic life with long lasting effe	cts.	
Hazardous to the ozone layer	Classification not possible		
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- * 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





Environment









[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 Thinner

1100000111110	Todaco IIII III					
Chemical name	Weight (%)	CAS No.	Chemical structure	Notice duty		
methyl isobutyl ketone	5~10	108-10-1	C6H12O	0		
propyleneglycol monomethylether	10~20	107-98-2	C14H10O2	0		
2-propanol	10~20	67-63-0	С3Н7ОН	0		
xylene	21	1330-20-7	C8H10	0		
ethylbenzene	39	100-41-4	C8H10	0		

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.

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(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 (\bigcirc), Foams (\bigcirc), Powder (\bigcirc), 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 equipment 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.
- st Gather used containers to the decided safekeeping place.

(Storage)

- * Store container tightly closed in the place which well-ventilated and cool.
- * Follow the Fire Defense Law and so on because of flammable liquid.

8. Exposure controls/personal protection

Standard control concentration, threshold limit value etc.

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

(control barameters c.9. coespanional enhances mine tarace of store-dreaf mine tarace)					
Chemical name		Tthreshold limit value	ACGIH (TWA)	PRTR	
methyl isobutyl ketone	20ppm	50ppm	20ppm	_	
propyleneglycol monomethylether	_	_	100ppm	_	
2-propanol	200ppm	400ppm	200ppm	_	
xylene	50ppm	50ppm	100ppm	Class 1-80	
ethylbenzene	_	50ppm	10ppm	Class 1-53	

(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	Transpa	rent co	lorless	Density	0.85	Flash point	12	$^{\circ}$ C
Odour	Solvent	odour		PH	Not correspond	Ignition point	278	${\mathbb C}$
Boiling point I	Lower	80	$^{\circ}\!\mathbb{C}$	Solbility	Not sol. In water	Flammability or ex	xplosive lin	nits
Boiling point (Jpper	145	$^{\circ}\!\mathbb{C}$	Partiton coeff	icient n-octanol/water	Lower	1	%
Vapour press	sure	_	Pa (ref.)		No data	Upper	13.8	%

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				
Chemical name	Oral	Dermal	Gasas	Vapours	
methyl isobutyl ketone	Not classified	Not classified	Not applicable	Category 3	
propyleneglycol monomethylether	Not classified	Not classified	Not applicable	Not classified	
2-propanol	Not classified	Not classified	Not applicable	Not classified	
xylene	Not classified	Classification not possible	Not applicable	Not classified	
ethylbenzene	Not classified	Not classified	Not applicable	Category 4	

Chemical name	Acute toxicity	Skin corrosion/	Serious eye damage/	Respiratory
Chemical mame	Mists	irritation	eye irritation	sensitization
methyl isobutyl ketone	Classification not possible	Not classified	Category 2B	Classification not possible
propyleneglycol monomethylether	Classification not possible	Not classified	Category 2B	Classification not possible
2-propanol	Classification not possible	Not classified	Category 2A-2B	Classification not possible
xylene	Classification not possible	Category 2	Category 2A	Classification not possible
ethylbenzene	Classification not possible	Category 3	Category 2B	Classification not possible

Chemical name	Skin concitization	Germ cell mutagenicity	(arcinogenicity	Reproductive toxicity
methyl isobutyl ketone	Not classified	Not classified	Category 2	Not classified
propyleneglycol monomethylether	Classification not possible	Not classified	Not classified	Not classified
2-propanol	Classification not possible	Not classified	Not classified	Category 2
xylene	Classification not possible	Not classified	Not classified	Category 1B
ethylbenzene	Classification not possible	Not classified	Category 2	Category 1B

Chemical name	Specific target organ systemic	Aspiration hazard	
Chemical name	Single exposure	Repeated exposure	Aspiration nazaru
methyl isobutyl ketone	Category 3	Category 1	Classification not possible
propyleneglycol monomethylether	Category 3	Not classified	Classification not possible
2-propanol	Category 1, 3	Category 2	Category 2
xylene	Category 1, 3	Category 1	Category 2
ethylbenzene	Category 2, 3	Classification not possible	Category 1

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

12. Ecological information

Chemical name	Hazardous to aquatic environment			
Chemical name	Acute	Chronic	Ozone layer	
methyl isobutyl ketone	Not classified	Not classified	Classification not possible	
propyleneglycol monomethylether	Not classified	Not classified	Classification not possible	
2-propanol	Not classified	Not classified	Classification not possible	
xylene	Category 2	Category 2	Classification not possible	
ethylbenzene	Category 1	Not classified	Classification not possible	

^{*} 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 4-1 Danger class II

(International regulation)

* UN number 1263 * UN proper shipping name PAINT

* UN classification Class 3 Flammable liquid

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Flammable liquid

Not applicable

Class-2

(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
Ordinance on the Prevention of Organic Solvent Poisoning

Ordinance on Prevention of Lead Poisoning

Ordinance on Prevention of Hazards due to Specified Chemical Substances

mical Substances chlomium vi

* Pollutant Release and Transfer Register Law Listed

* Poisonous and Deleterious Substances Control Law

Not applicable

Fire Defense Law

Annex class 4-1

Ship Safety Law

Flammable liquid

* Offensive Odor Control Low 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.