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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier Product Name / Product Number ZIG CARTOONIST MANGAKA /CNM-01, 02, 03, 05, 08, 003, 005, CNMF, CNMM CAS No. Mixture. FINECS No. Mixture. 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified Use(s) Drawing Uses Advised Against None known. Details of the supplier of the safety data sheet 1.3 **Company Identification** KURETAKE CO., LTD. 576 Minamikyobate-cho, 7-chome, Nara-shi, 630-8670, Japan Telephone +81-742-50-2055 Fax +81-742-50-2077 E-Mail (competent person) kuretake@kuretake.co.jp (Technician of Lab.) 1.4 **Emergency telephone number** +81-742-50-2055 [9:00 - 17:00 JST (GMT+9)]. Languages spoken Japanese

SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification of the substance or mixture	
2.1.1	Regulation (EC) No. 1272/2008 (CLP)	Not classified as hazardous
2.2	Label elements	
	Product Name	ZIG CARTOONIST MANGAKA
	Hazard Pictogram(s)	None.
	Signal Word(s)	None.
	Hazard Statement(s)	None.
	Precautionary Statement(s)	None.
2.3	Other hazards	None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Not applicable

- **3.2 Mixtures** Substances in preparations / mixtures
 - EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Ethylene glycol	≦ 10	107-21-1	203-473-3	None assigned.	Acute Tox. 4: H302
Triethanolamine	0 - 2.0	102-71-6	203-049-8	None assigned.	Not Classified.
Isopropyl alcohol	0 - 2.0	67-63-0	200-661-7	None assigned.	Flam. Liq. 2: H225
					STOT SE 3: H336
					Eye Irrit. 2: H319
Ammonium Hydroxide	0 - 0.4	1336-21-6	215-647-6	None assigned.	Skin Corr. 1B: H314
					Aquatic Acute 1: H400
Glycerol	15 - 20	56-81-5	200-289-5	None assigned.	Not Classified.
Pigment					
Carbon Black	Non-disclosure	1333-86-4	215-609-9	None assigned.	Not Classified.
Other Pigments	Non-disclosure	-	-	None assigned.	Not Classified.
Water soluble Resin	< 10	-	-	None assigned.	Not Classified.
Water	60 - 70	7732-18-5	231-791-2	None assigned.	Not Classified.

3.3 Additional Information

For full text of H/P phrases see section 16.

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4.1	Description of first aid measures				
	Inhalation	Remove the victim to the fresh air area. If feel bad, see a doctor.			
	Skin Contact	Put off the all polluted clothes immediately. Clean with the proper temp. and slow flowing water for over 15 minutes. If have irritate the skin, see a doctor. Call a doctor if feel bad. Before re-use the put off clothes, clean it up and remove the pollution.			
	Eye Contact	Put off the contacts if possible, and continue to clean. Clean the eyes carefully for a few minutes. If the eyes get this product, clean the eye immediately and wash away completely. If the cleaning eyes not enough, may cause irreversible eye damage. If irritate to the eyes continue, see a doctor.			
	Ingestion Expected acute symptom and late symptom	Call a doctor, if feel bad. Rinse the mouth out. Do not have the victim vomit. Sialorrhea, face flash, cough, dizzy, lethargy, headache, sore throat, deliquim animi barf, vomition			
4.2	Most important symptoms and effects, both acute and delayed				
4.3	Indication of any immediate medical attention and special treatment needed	Rescuer must wear proper protective equipment according to the situation Symptom will appear later, so that if the patient exposed excessively, it needs medical follow progress.			
SEC	CTION 5: FIRE-FIGHTING MEASURES				
5.1	Extinguishing media				
	Suitable Extinguishing Media	Small fire / Carbon dioxide, dry chemical extinguishing media, water spray alcoholic resistance foam. Water spray, mist water, alcoholic resistance form.			
	Unsuitable extinguishing Media	Cylindrical pouring water.			
5.2	Special hazards arising from the substance or mixture	The irritative, toxicity and corrosive gas is generated by fire. The container will be burst by heating. If it is not dangerous, move the container from the fire area.			
		If it is impossible to move, cool the container and around by spraying water. After extinguishing a fire, cool the container completely by large quantity of water.			
5.3	Advice for fire-fighters	For fighting fire, wear compressed air open-circuit SBCA and protect equipment for chemical. Fight a fire from up wind.			
SEC	CTION 6: ACCIDENTAL RELEASE MEASURES				
6.1	Personal precautions, protective equipment and emergency procedures	The worker must wear proper protector (refer to section 8) not to get the paint on the skin or into eyes. Do not touch the leakage material or walk into it.			
		Keep the proper distance in all direction as the leakage area immediately. No unauthorized entry. If leakage but not occur a fire, wear the occlusive and impervious protect wear. Stay in the wind. Move away from the low ground.			
		Ventilate before enter the sealed area.			
6.2	Environmental precautions	Prevent from influx into the drain ditch, sewer, basement and closed area. Take notice not to affect the environment by discharge the paint into the river.			
6.3	Methods and material for containment and cleaning up	Collect Neutralization: In small quantity case, absorb the leakage material by dry sand and nonflammable material or collect it in the sealed type container then dispose it. In small quantity case, collect the absorbed material by clean antistatic tools. In large quantity case, yard the leakage material by mound to prevent flow out and lead it into safety area then collect it. In large quantity case, water spray lower the steam temperature but it may not inhibit combustion at the sealed area.			
		Containment or Depurant and Equipment: If it is not danger, stop the			

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		Ground all equipment which need for handle the leakage material. Use steam retard foam for lower the steam concentration. Precaution of Second Disaster: Clear away all ignition source immediately
		(Do not smoking near around, forbid firework and flame).
		In case large steam generating, retard it by mist spray. Call related agency and ask the help.
6.4	Reference to other sections	See Section: 8, 13
SEC	TION 7: HANDLING AND STORAGE	
7.1	Precautions for safe handling	Do the equipment measure described on the section 8 and wear protector.
		Do the local exhaust ventilation and whole ventilation described on section 8.
		Prevent leakage the liquid and steam as possible.
		This product irritate the eyes so that care not to get it into the eyes. This product may cause sleep or vertigo, irritate the apparatus respiratorius and damage organ parts so that do not touch, inhale and swallow it. Do not fall, drop, shock or drag the container. Clean hands well after use this product.
		Use this product outside or well ventilated area only. Avoid touching, refer to the section10.
		Keep away from high temperature materials spark and fire, and avoid touching oxidizer and organic peroxide.
7.2	Conditions for safe storage, including any incompatibilitie	es
	Storage	Keep the container airtight and stock it in well ventilated place. Stock in the fulfilled and ventilated and cool place. Keep away from oxidant. Keep away from direct sunlight and fire. The inventory location must be fire-proof construction and the floor must be impermeable to prevent permeate the basement and spill to outside. Lock up the container.
		Dangerous goods if mixed: Refer to the section 10.
		Container material: Use the container regulated by fire law and UN transportation law.
7.3	Specific end use(s)	See Section: 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Name	ACGIH (TLV)
Ethylene glycol	MAX 100mg/m3 (aerosol)
Triethanolamine	No data
Isopropyl alcohol	400ppm
Ammonium Hydroxide	No data
Glycerol	No data
Carbon Black	3mg/m ³
Other Pigments	No data
Water soluble Resin	No data
Water	No data

- 8.1.2 Biological limit value
- 8.1.3 PNECs and DNELs
- 8.2 Exposure controls
- 8.2.1 Appropriate engineering controls
- 8.2.2 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection Skin protection

8.2.3 Environmental Exposure Controls

No data No data

Install the eye washing devices and safety shower where handle or stock this product.

Wear proper respiratory protect equipment such as gas mask for organic gas (if high concentration, wear air-supplied respirator).

Check the protect equipment regularly with check sheet.

Wear the eye protector designated by manufacturer.

Wear the gloves designated by manufacturer.

Wear protect boots, oil resistant apron (impermeable and antistatic) and protect clothes (antistatic) designated by manufacturer.

Clean hands well after use this product.

No data

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SEC	TION 9: PHYSICAL AN		CAL PROPERTIES
9.1	Information on basic phys		
0.1	Appearance		Liquid
	Odour		Odourless
	Odour Threshold		No data
	pH		No data
	Melting Point/Freezing Point		No data
	Initial boiling point and boilin		No data
	Flash Point	y range	No data
	Evaporation Rate		No data
	•		No data
	Flammability (solid, gas)	ovolocivo limi	
	Upper/lower flammability or	explosive lim	
	Vapour pressure		No data No data
	Vapour density		
	Relative density		No data
	Solubility(ies)	al/watar	No data
	Partition coefficient: n-octane	J/walei	No data No data
	Auto-ignition temperature		
	Decomposition Temperature	;	No data
	Viscosity		No data No data
	Explosive properties		
0.0	Oxidising properties Other information		No data
9.2			
	Specific gravity (20°C)		No data
SEC	TION 10: STABILITY A		ΤΙΛΙΤΧ
10.1	Reactivity		No data
10.2	Chemical stability		Under usually storage condition, it is stable.
10.2	Possibility of hazardous read	tions	No data
10.5	Conditions to avoid		No data
10.4	Incompatible materials		No data
10.5	Hazardous decomposition pl	roduct(s)	Generates harmful gas such as carbon monoxide and carbon dioxide.
		00000(0)	
SEC	TION 11: TOXICOLOG	ICAL INFO	DRMATION
11.1	Information on toxicologic	al effects (S	ubstances in preparations / mixtures)
	Acute toxicity		Not Classified.
	Ingestion		Not Classified.
	Inhalation		Not Classified.
	Skin Contact		Not Classified.
	Skin corrosion/irritation		Not Classified.
	Serious eye damage/irritat	ion	Not Classified.
	Respiratory or skin sensiti		Not Classified.
	Germ cell mutagenicity		Not Classified.
	Carcinogenicity		Not Classified.
	Reproductive toxicity		Not Classified.
	STOT - single exposure		Not Classified.
	STOT - repeated exposure		Not Classified.
	Aspiration hazard		Not Classified.
11.2	Other information		
	Name	IARC	OTHER
	Ethylene glycol	No data	LD50(oral, rat) = 4700mg/kg
	Triethanolamine	3	LD50(oral, rat) 7269.3mg/kg
	Isopropyl alcohol	No data	LD50 (rat oral) = 3437mg/kg
	Ammonium Hydroxide	No data	LD50(oral, rat) = 350mg/kg
	Glycerol	No data	No data
	Carbon Black	2B	LD50(oral, rat) =15400mg/kg
	Other Pigments	No data	No data
	Water soluble Resin	No data	No data
	Water	No data	No data
	k		

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SEC	TION 12: ECOLOGICAL INFORMATION			
12.1	Toxicity	No data		
12.2	Persistence and degradability	No data		
12.3	Bioaccumulative potential	No data		
12.4	Mobility in soil	No data		
12.5	Results of PBT and VPVB assessment	No data		
12.6	Other adverse effects	None known.		
SEC	TION 13: DISPOSAL CONSIDERATIONS			
13.1	Waste treatment methods	Residue Waste: For dis	nose follow the	e related regulation and standard of
				dustrial waste disposal company or
				waste liquid directly or mix with burn. Activated sludge process.
13.2	Additional Information		elated regulation	the container and recycle or treat it on or local governments. If dispose pletely.
SEC	TION 14: TRANSPORT INFORMATION			
		ADR/RID	MDG	ΙΑΤΑ/ΙCΑΟ
14.1	UN number	Not applicable.	Not applicable.	Not applicable.
14.2	UN proper shipping name	Not applicable.	Not applicable.	Not applicable.
14.3	Transport hazard class(es)	Not applicable.	Not applicable.	Not applicable.
14.4	Packing group	Not applicable.	Not applicable.	Not applicable.
14.5	Environmental hazards		Not applicable.	Not applicable.
14.6	Special precautions for user	See Section: 2		
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.	Not applicable.	Not applicable.
14.8	Additional Information			Check if there are no leakage from g, dropping and damage.
		Land Transportation: In case of fall under the Fire Law, Industrial Safety and Health Law, Poisonous Material Control Law follow each relevant mode of transportation.		
				ne Law for Safety of Vessel. viation Law and regulation of ICAO.
SEC	TION 15: REGULATORY INFORMATION			
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	Regulatory information v region should be examined		his substance in your country or nesponsibility
15.1.1	EU regulations			
	Authorisations and/or Restrictions On Use	Not applicable.		
	CoRAP Substance Evaluation	Not applicable.		
15.1.2	2 National regulations	Outline of Hazardous M		
	Japan	Industrial Safety and He	2, E	ice object goods (Article 57, section Enforcement regulation 18-21, vendix 9.)
		Fire Law:	N/A	
		Law for Safety of Vesse	l: N/A	
		Aviation Law:	N/A	
15.2	Chemical Safety Assessment	Not applicable.		

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SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16. References: Raw material manufacturer SDS

Table 3.1 of Annex VI to the CLP Regulation				
LEGEND				
TLV	Threshold Limit Value			
DNEL	Derived No Effect Level			
PNEC	PNEC Predicted No Effect Concentration			
PBT	Persistent, Bioaccumulative and Toxic			
vPvB	very Persistent and very Bio-accumulative			
Flam. Liq. 2	Flammable Liquid Category 2			
Acute Tox.4	Acute Toxicity - Oral Category 4			
Skin Corr.1B	Skin Corrosion / Skin Irritation Category 1B			
Eye Irrit. 2	Eye Irritation Category 2			
STOT SE 3	Specific Target Organ systemic Toxicity (Single Exposure) Category 3			
Aquatic Acute 1	Hazardous to the Aquatic Environment - Acute Hazard 1			
H225	Highly flammable liquid and vapour.			
H302	Harmful if swallowed			
H314	Causes severe skin burns and eye damage			
H319	Causes serious eye irritation			
H336	May cause drowsiness or dizziness			
H400	Very toxic to aquatic life			

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

The description content of this data sheet is based on the documentation, information and data that we can garner at the present moment so that it might be change depend on new information. And it is recommend for usual handling so that in case of special handling, use it before take safety measure that suitable for your application and usage.

The description content is information service and not certification.

Annex to the extended Safety Data Sheet (eSDS)

Not available.