Product name: Matsumin Metallic Binder 301

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SECTION 1.1	denuncation of	or the	substance/	Dreparation	and 0	I une	company/undertakin	<u> </u>
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1.1 Product identifier			
Product name:	Matsumin Metallic Binder 301		
1.2 Relevant identified uses of	the substance or mixture and uses adviced against		
Recommended use:	Printing ink for paper, textile, wood, and film.		
Product description:	Water based binder of resin.		
1.3 Details of the supplier of th	e Safety Date Sheet		
Supplier:	Matsui Shikiso Chemical Co., Ltd.		
	64, Kamikazan Sakuradani-cho, Yamashina-ku, Kyoto, 607-8466, JAPAN Telephone no.: +81 75 594 5612		
E-mail:	msc-export@msc-color.co.jp		
Agency:	Matsui International Co., Inc.		
	1501 West 178th Street, Gardena, CA 90248, U.S.A. Telephone no.: (310) 767-7812		

#### 1.4 Emergency telephone number

+81 (75) 594-5612 / (310) 767-7812

SECTION 2. Hazards identification —					
2.1 Classification of the substar	2.1 Classification of the substance or mixture				
Classification acording to reg	Classification acording to regulation (EC)No. 1272/2008 [CLP]:				
	See Section 16.				
Classification acording to Co	Classification acording to Council Drective 67/548/EEC:				
	Not classified.				
2.2 Label elements	None.				
2.3 Other hazards	None.				
SECTION 3. Composition/i	nformation on ingredients —				
3.2 Mixtures					
Resin:	Concentration approx. 30%				
	CAS No. 24980-96-9, 25767-43-5				
	EC No. polymer				
Aluminum:	Concentration approx. 6%				
	CAS No. 7429-90-5				
	EC No. 231-072-3				
	Index No. 013-001-00-6				
Water and other non-hazardous ingredients: the rest					
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Hazardous ingredient: This product does not include hazardous ingredient.

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### SECTION 4. First-aid measures

4.1 Description of first aid measured	sures
Inhalation:	If inhale a large quantity, remove to fresh air. Keep warm and at rest. Seek medical attention as needed.
Skin contact:	Wash with mild soap and water. If needed, get medical attention.
Eye contact:	Immediately flush eyes with water for at least 15 minutes. Seek medical attention as needed.
Ingestion:	Rince mouth thoroughly with water. Induce vomiting if possible. Seek medical attention as needed.
4.2 Most important symptoms a	nd effects, both acute and delayed No symptoms known currently.
4.3 Indication of any immediate	e medical attention and special treatment neede No special measures needed.
SECTION 5. Fire-fighting r	neasures
5.1 Extinguishing media	
Suitable extinguishing media	: In case of combustion, use water, sand, dry chemical, or $CO_2$ gas. (This product is not combustible under normal condition due to its aqueous property.)
Unsuitable extinguishing med	lia: No data available.
5.2 Special hazards arising from	the substance or mixture
Hazardous combustion product	ts:
	No data available.
5.3 Advice for firefighters:	In case of fire, wear respirator.
SECTION 6. Accidental rel	ease measures
6.1 Personal precautions, protec	tive equipment and emergency procedures Wear protective clothing and equipment as needed. Ventilate area.
6.2 Environmental precautions	Avoid releasing spilled material into rivers and/or lakes to prevent environmental impact. If material is released to public water in large amounts, advise local authority.
6.3 Methods and materials for c	For small spill, absorb with dry sand, soil, saw dust or rag. Collect into container for disposal and wipe the remaining up with rag. For large spill, dike with soil, blanket or sandbags to prevent from entering public waters, and collect into container with shovel or vacuum.
6.4 Reference to other sections	Reffer to section 8 and 13.

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7.1 Precautions for safe handlin	ng
Protective measures:	Wear suitable protective equipment and clothing as needed to prevent the material from contacting skin and eyes. Local exhaust ventilation or general ventilation is recommended during indoor operation. Minimize vapour generation and avoid breathing vapour.
Advice on general occupatio	nal hygiene: Wash thoroughly after handling. Do not eat, drink, or smoke during work
7.2 Conditions for safe storage,	, including any incompatibilities
Technical measures storage	conditions: Keep container airtight. Store in a cool and dark place away from excessive heat and direct sunlight.
Packaging materials:	Impermeable materials.
7.3 Specific end uses	Reffer to Section 1.2
SECTION 8 Exposure cont	rols/personal protection
8.1 Control parameters	
Occupational exposure limit	values: Aluminum: TWA: 1 mg/m <sup>3</sup> (Aluminum metal and Insoluble compounds ) (ACGIH 2008)
8.2 Exposure controls	
8.2 Exposure controls Appropriate engineering con	trols:
-	trols: Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits.
-	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits.
Appropriate engineering con	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits.
Appropriate engineering con Personal protection equipme	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits. nt:
Appropriate engineering con Personal protection equipmer - Respiratory protection:	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits. nt: Wear mask when applicable.
Appropriate engineering con Personal protection equipme - Respiratory protection: - Hand protection:	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits. nt: Wear mask when applicable. Wear rubber or plastic gloves.
Appropriate engineering con Personal protection equipmer - Respiratory protection: - Hand protection: - Eye protection:	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits. nt: Wear mask when applicable. Wear rubber or plastic gloves. Wear safety glasses or chemical goggles.
<ul> <li>Appropriate engineering con</li> <li>Personal protection equipmer</li> <li>Respiratory protection:</li> <li>Hand protection:</li> <li>Eye protection:</li> <li>Skin and body protection:</li> </ul>	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits. nt: Wear mask when applicable. Wear rubber or plastic gloves. Wear safety glasses or chemical goggles. Wear long pants, long sleeves and face shield when applicable. Nothing in particular.
<ul> <li>Appropriate engineering con</li> <li>Personal protection equipmer</li> <li>Respiratory protection:</li> <li>Hand protection:</li> <li>Eye protection:</li> <li>Skin and body protection:</li> <li>Hygiene measures:</li> </ul>	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits. nt: Wear mask when applicable. Wear rubber or plastic gloves. Wear safety glasses or chemical goggles. Wear long pants, long sleeves and face shield when applicable. Nothing in particular.
Appropriate engineering con Personal protection equipmer - Respiratory protection: - Hand protection: - Eye protection: - Skin and body protection: Hygiene measures: SECTION 9. Physical and	Local exhaust ventilation or general ventilation is recommended during indoor operation, especially when vapours or mists can be released in excess of established airborne exposure limits. nt: Wear mask when applicable. Wear rubber or plastic gloves. Wear safety glasses or chemical goggles. Wear long pants, long sleeves and face shield when applicable. Nothing in particular.

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Odour:	Slight odour.
pH:	7.0 - 7.5
Melting point:	No data available.
Boiling point:	No data available.
Flash point:	No data available.
Evaporation rate:	No data available.

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	Flammability:	If this product is dry, it may be flammable.
Upper/lower flammability or e		explosive limits:
		No data available.
	Vapour pressure:	No data available.
	Vapour density (air=1):	No data available.
	Relative density:	$1.00 \pm 0.05$
	Solubility:	Miscible.
	Partition coefficient:n-octano	/water:
		No data available.
	Auto-ignition temperature:	No data available.
	Decomposition temperature:	No data available.
	Viscosity:	60,000-70,000 mPa·s
	Explosive Properties:	Not applicable.
	Oxidizing Properties:	Not applicable.
	SECTION 10. Stability and	reactivity —
	10.1 Reactivity	No specific reactivity under normal condition.
	10.2 Chemical stability	Stable under normal handling and using condition.
	10.3 Possibility of hazardous re	raction
		Nothing in particular.
	10.4 Conditions to avoid	Nothing in particular.
	10.5 Incompatible materials	Nothing in particular.
	10.6 Hazardous decomposition	products
		Nothing in particular.
	SECTION 11. Toxicologica	l information —

11.1 Information on	toxicological effects
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Acute toxicity:	Oral LD50 > 2,000 mg/kg (caluculation method)
Irritation:	No data available.
Corrosivity:	No data available.
Sensitisation:	No data available.
Repeated dose toxicity:	No data available.
Carcinogencity:	Not applicable.
Mutagenicity:	No data available.
Toxicity for reproduction:	No data available.

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SECTION 12	2. Ecological	information -
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12.1 Toxicity	
Acute toxicity:	LC50 > 43.4  mg/L (caluculation method)
Chronic toxicity:	
Fish:	No data available.
Crustacea:	No data available.
Algae/aquatic plants:	No data available.
12.2 Persistence and degradabili	ity
	No data available.
12.3 Bioaccumulative potential	No data available.
12.4 Mobility in soil	No data available.
12.5 Result of PBT and vPvB a	ssessment
	No data available.
12.6 Other adverse effects	No data available.
SECTION 13. Disposal con	siderations —
13.1 Waste treatment method	
Product/packaging disposal:	Dispose of in accordance with local, national, and EU regulations.
Sewage disposal-releavant int	
	Do not dump this product into sewers, on the ground or into any body of water.
SECTION 14. Transport inf	formation ———
14.1 UN No.	Not applicable.
14.2 UN proper sipping name	Not applicable.
14.3 UN Class	Not applicable.
14.4 UN Packing Group	Not applicable.
14.5 Environmental hazards	Not applicable.
14.6 Special precautions for use	or
	Reffer to section 6 and 8.
14.7 Transport in bulk accordin	g to Annex II of MARPOL 73/78 and the IBC Code No transport as bulk.
SECTION 15. Regulatory in	nformation —
15.1 Safety, health and environment	nenatal regulation/legislation specific for the substance or mixture
EU regulations	
(EC) No. 2037/2000:	Not applicable.
(EC) No. 689/2008:	Not applicable.
(EC) No. 850/2004:	Not applicable.

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15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture.

#### SECTION 16. Other information -

Classification acording to regulation (EC)No. 1272/2008 [CLP]:

Hazard class	Hazard category	H-statements	P-codes
			P260
			P264
specific target organ toxicity after	2	H371	P270
single exposure			P309+P311
			P405
			P501
specific target organ toxicity after			P260
repeated exposure	2	H373	P314
			P501
the aquatic environment (chronic)	3	H412	P273
		H412	P501

See below for full text of H-statements and P-codes.

Label elements :



Full text of H-statements:	H371; May cause damage to organs <respiratory organs="">.</respiratory>
	H373; May cause damage to organs <kidney and="" lung=""> through prolonged or repeated exposure .</kidney>
	H412; Harmful to aquatic life with long lasting effects.
Full text of P-codes:	P260; Do not breathe fume/gas/mist/vapours/spray.
	P264; Wash … thoroughly after handling.
	P270; Do no eat, drink or smoke when using this product.
	P273; Avoid release to the environment.
	P309+P311; IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
	P314; Get medical advice/attention if you feel unwell.
	P405; Store locked up.
	P501; Dispose of contents/container in accordance with local/regional/ national/international regulation.
Indication of changes:	This updated MSDS has changed to adapt to Regulation (EU) No. 453/2010.

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Abbreviations and acronyms:

CAS	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008
IBC-Code	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	The International Convention for the Prevention of Pollution from Ships
PBT	Persistent, Bioaccumulative and Toxic substance
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
vPvB	Very Persistent and Very Bioaccumulative
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Key literature references and sources for data:

Guidance on the compilation of safety data sheets (Version 1.1 – December 2011) Chemical Risk Information Platform (CHRIP: http://www.safe.nite.go.jp/japan/db.html) IUCLID Chemical Data Sheet

The information set forth herein is to the best knowledge and belief of MATSUI SHIKISO CHEMICAL CO., LTD. If not employed as directed, we do not guarantee that the hazard precautions or procedures mentioned above are the only ones which exist and we do not assume responsibility in case of unusual use of this product.