

Product Code: 145-1225-000
Company Name: Murata Machinery LTD.
136, Takeda-Mukaisiro-cho, Fushimiku, Kyoto 612 Japan
Phone #: 81/75-662-7719
MSDS#: DR0037-0101

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)

Chemical Name	CAS#	Weight %	EU Symbol	EU R-Phrase
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Not applicable for drum

Chemical Name	USA OSHA PEL	ACGIH TLV
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Not applicable for drum

Chemical Name	EU ILV	DFG MAK
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Not applicable for drum

Carcinogen

Chemical Name	CAS #	Reference
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None

Other Ingredient(s)

Chemical/Generic Name	Weight %
Aluminum alloy	94.0 - 98.0
Titanium dioxide (13463-67-7)	0.5 - 2.0
Binder resin	0.5 - 2.0
Organic semiconductor	0.3 - 0.8

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview: Dark yellowish green colored aluminum cylinder with no odor.

Potential Health Effects and Symptoms:

Inhalation: Not applicable under intended use.

Ingestion: Not applicable under intended use.

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Chronic Effects: Not Identified

Medical Conditions Generally Known to be Aggravated by Exposure:
Not identified

SECTION 4 FIRST AID MEASURES

First Aid Measures:

Inhalation: Not applicable under intended use. If needed, get medical attention.

Ingestion: Not applicable under intended use. If needed, get medical attention.

Eye: Not applicable under intended use. Flush with plenty of water.

Skin: In case of contact, wash skin with water and soap.

Note to Physicians: None

SECTION 5 FIRE FIGHTING MEASURES

Fire Fighting Measures:

Extinguishing Media: CO₂, Dry Chemical, foam or water

Unsuitable

Extinguishing Media: None

Special Fire
Fighting Procedures: None

Unusual Fire and
Explosion Hazards: None

Fire and Explosive Properties:
Flash Point (°C) Not applicable

Flammable (Explosive) Not applicable
Limits:

Autoignition Not applicable
Temperature (°C):

Flammability: Not flammable

Autoflammability: None

Explosive Properties: None

Oxidizing Properties: None

Hazardous Combustion
Products: CO, CO₂

Other Properties: None

Personal Precautions: Not applicable under intended use.

Environmental Precautions: Not applicable under intended use.

Method for Cleaning Up: Not applicable under intended use.

SECTION 7 HANDLING AND STORAGE

Handling: No safe handling advice.

Storage: Keep at temperature not exceeding 45°C.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines: None

Engineering Controls: Not required.

Personal Protection Equipment:

Respiratory Protection: Required Not required

Eye/Face Protection: Required Not required

Skin Protection Required Not required

Odor:	No odor
pH:	Not applicable
Boiling Point / Range (°C):	Not applicable
Melting Point / Range (°C):	100°C or higher
Decomposition Temperature (°C):	No data available
Flash Point (°C):	Not applicable
Flammable (Explosive) Limits:	Not applicable
Autoignition Temperature (°C):	Not applicable
Flammability:	Not flammable
Autoflammability:	None
Explosive Properties:	None
Oxidizing Properties:	None
Vapor Pressure:	Negligible
Vapor Density:	Not applicable
Density / Specific Gravity:	No data available
Water Solubility:	Negligible
Fat Solubility:	Partially soluble in ketones, esters and aromatic solvents
Partition Coefficient (N-Octanol/Water):	Not soluble in water and n-octanol
Percent Volatile:	Negligible
Evaporation Rate:	Not applicable

Materials to Avoid: None

Hazardous Decomposition Products: None

Hazardous Polymerization: May Occur Will not occur
Conditions to Avoid: None

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:
Inhalation: No data available

Ingestion: Oral LD50: >200mg/Kg (rats)

Eye: No data available

Skin: No data available

Sensitization: No data available

Mutagenicity: Negative (Ames Test: Salmonella typhimurium)

Reproductive
Toxicity

city: No data available

Carcinogenicity: No human carcinogen or potential carcinogen, according to IARC Monographs, NTP, OSHA (USA) regulation, California Proposition 65 and Annex I of EU Directive 67/548/EEC.

Others: None

SECTION 12 ECOLOGICAL INFORMATION

No information indicating any adverse ecological effects.

SECTION 13 DISPOSAL INFORMATION

Method of Disposal: Dispose under conditions which meet all federal, state, and local environmental control regulations.

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UN Classification: None

UN Packing Group: None

Special Precautions: None

SECTION 15 REGULATORY INFORMATION

EU Information

Information on the Label:

Symbol & Indication: Not required

R-Phrase: Not required

S-Phrase: Not required

Dangerous
Component(s): None

Specific Provisions in Relation to Protection of Man or the Environment:

76/769/EEC: Not regulated

(EEC)3093/94: Not regulated

(EEC)2455/92: Not regulated

Others: None

USA Information:

Information on the Label

Signal Word: Not required

Hazard Warning: Not required

Safety Advice: Not required

Hazardous
Component(s): None

MATERIAL SAFETY DATA SHEET

SECTION 16 OTHER INFORMATION

Literature Reference:

- U.S. Department of Labor, 29 CFR Part 1910
- U.S. Environmental Protection Agency, 40 CFR Part 372
- U.S. Consumer Product Safety Commission, 16CFR Part 1500
- ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices
- U.S. Department of Health and Human Services National Toxicology Program, annual Report on Carcinogens
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans
- DFG, List of MAK and BAT Values
- EU Directive 76/769/EEC, 67,548/EEC, 88/379/EEC and their amendments.
- EU Regulation (EC)3093/94, (EEC)2455/92 and their amendments.

Other Information:

None

Abbreviations:

- “EU” stands for European Union
 - “OSHA PEL” stands for PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration.
 - “ACGIH TLV” stands for TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists
 - “EU ILV” stands for Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC.
 - “DFG MAK” stands for MAK (Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft.
 - “TWA” stands for Time Weighted Average.
 - “IARC” stands for International Agency for Research on Cancer.
 - “NTP” stands for National Toxicology Program (USA).
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