DOMO Engineering Plastics US

Safety Data Sheet

Ecomass Compounds 1800TU-ZD Series

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1(a) Product Identifier used on label

Ecomass Compounds:	1800TU-ZD Series
Form:	Plastic Compound (Polyamide 6, PA6) & Metallic Powder Mixture (Pellets)

1(b) Other means of identification

Polycaprolactum

1(c) Recommended use of the chemical and restrictions on use

1. Uses: Thermoplastic for Injection Molding and Extrusion
2. Restrictions on Uses: None

1(d) Name, address, & telephone number of the chemical manufacturer, importer, or supplier

DOMO Engineering Plastics US
4917 Golden Parkway, Suite 300
Buford, GA 30518
770-237-2311

1(e) Emergency phone number

770-237-2311

SECTION 2: Hazard(s) Identification

2(a) Hazard Classification

(GHS-US):	Not classified as a hazardous substance or mixture.

2(b) Label Elements

Signal Word:	None
Pictogram:	None
Hazard Statements:	None
Supplemental Hazard Statement:	Processing may release vapors and/or fumes which cause eye, skin, and respiratory tract irritation.

2(c) Hazards not otherwise classified

This material has not been evaluated as a whole. All ingredients are bound in a polymer matrix and potential for hazardous exposure as shipped is minimal. However, some fumes may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respirator program, etc.) to protect his employees from exposure which may cause eye, skin, and respiratory tract infection. Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness (severity of effects depends on extent of exposure). (See Section 8 - Exposure Controls / Personal Protection) The following ingredients are considered hazardous per OSHA 1910.1200:

1. Metallic Powder
2. Nuisance Dust

2(d) Ingredients with unknown toxicity

None

SECTION 3: Composition / Information on Ingredients

Products as manufactured are classified as non-hazardous and chemical disclosure is not required by regulation(s).

While not required, polymers and metal powders are described below with their CAS Number(s).
If a chemical is not specifically identified, it is considered proprietary.

Each tungsten powder particle is bound in a polymer matrix mixture and potential for hazardous exposure as shipped is minimal.

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Name	Product Identifier	%	Classification (GHS-US)
Nylon 6 (Polycaprolactam)	(CAS No) 25038-54-4	< 100	Not classified
Tungsten (W)	(CAS No) 7440-33-7	< 100	Not classified

SECTION 4: First Aid Measures

4(a) Description of First Aid Measures

After Inhalation: No known effects. Supply fresh air. Seek medical treatment.

After Skin Contact: No known effects. Flush contacted skin. If contact with molten product, immediately flush with cool water. Do not pull solidified product off skin. Seek medical treatment.

After Eye Contact: No known effects. Flush eyes with water. If contact with molten product, immediately flush with cool water. Seek medical treatment.

After Ingestion: No known effects. DO NOT induce vomiting. Seek medical treatment.

4(b) Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: No known effects. Long term skin contact could cause skin dryness.

4(c) Indication of any immediate medical attention and special treatment needed

Treat symptoms as above. No specific antidote. Consult physician and/or seek medical treatment.

SECTION 5: Fire Fighting Measures

5(a) Suitable Extinguishing Media

Water spray, Carbon dioxide (CO_2), Alcohol-resistant Foam, or Dry Chemical. For large fires use foam, water spray and call for fire-fighting assistance.

Unsuitable Extinguishing Media

Do not use a solid water stream, as it may scatter and spread fire.

5(b) Specific hazards arising from the substance or mixture

Fire hazard: Not flammable but will burn and the following hazardous products of combustion can occur: Carbon Oxides, Nitrogen Oxides (NOX).

Explosion hazard: Static charge buildup can be a potential fire hazard when used in the presence of volatile, flammable vapors or in high airborne dust concentrations.

Reactivity: Non-reactive.

5(c) Advice for Fire Fighters

Precautions: Use standard protective clothing for fire fighters. Self contained breathing apparatus (SCBA) should be worn to prevent inhalation of smoke and decomposition products in the event the material should burn. Decontaminate fire fighting equipment after use.

SECTION 6: Accidental Release Measures

6(a) Personal precautions, protective equipment and emergency procedures

General measures: If spilled, may cause a fall or slipping hazard. Avoid dust generation. Keep away from ignition sources. Ensure proper ventilation.

Environmental:	Prevent dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Prevent entry to sewers and public waters.

6(b) Methods and material for containment and cleaning up

Containment: Prevent further leakage or spillage if you can do so without risk. Ventilate the area. Shovel, scoop, sweep up or use industrial vacuum cleaner and return to original container. Products are non-hazardous waste. Proper disposal should be evaluated based on local, state, and federal regulations/legislation or directives. Users must determine if a report is required to EPA for any amounts of this material disposed of or otherwise released into the environment.

References: Refer to Sections 7, 8, and 13.

SECTION 7: Handling and Storage

7(a) Precautions for Safe Handling

Prevent generation of dust and avoid breathing dust. If necessary, wear a dust mask. Avoid breathing processing fumes or vapors and use local exhaust above processing areas. Wash hands after use. Avoid eating, drinking and smoking in work areas. Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing. Take precautionary measures against static discharge. Earth/Ground processing equipment. Product may accumulate static charge during transport, handling and processing. Considering the risks of electrostatic discharges, handling the products in potentially flammable atmospheres should be evaluated. Suitable precautions should be taken at all times, in particular when emptying bags or other packaging. Static charge buildup can be a potential fire hazard when used in the presence of volatile or flammable mixtures. Keep away from ignition sources. If product is processed into smaller particles, explosive hazardous conditions must be evaluated. When processing these products, read applicable Technical Data Sheet. Avoid processing material above recommended thermal processing temperatures.

7(b) Conditions for safe storage, including any incompatibilities

Stable under recommended storage conditions. Do not store outside. Keep container dry. Keep in a cool, dry, well-ventilated place. Store in tightly closed containers, in a secure area to prevent container damage and subsequent spillage. Store away from moisture and heat to maintain the technical properties of the product. Avoid storage under pressure or at elevated temperatures above to minimize particulate clustering. Do not store with alkalis, oxidizers, or acids.

7(c) Specific end use(s)

No additional information available.

SECTION 8: Exposure Controls / Personal Protection

8(a) Exposure Control Limits - Polyamide 6

	Form - PNOC	Time Weighted Average
ACGIH TLV	Inhalable Particles	10 mg/m^3
	Respirable Particles	3 mg/m^3

OSHA PEL Table Z-1	Form - PNOR	PEL
Air Contaminants	Respirable Fraction	5 mg/m^3
	Total Dust	15 mg/m^3

Exposure Control Limits - Tungsten ("W")

ACGIH	Form	TWA (Time Weighted Average)
	as W	5 mg/m^3
		STEL (Short Term Exposure Limit)
	as W	10 mg/m^3

8(b) Appropriate Engineering Controls

Use local exhaust ventilation during processing and secondary operations (cutting, regrinding, chopping, etc.) to reduce exposures. When transferring products, earth/ground all subsequent equipment to minimize charges that may develop.

8(c) Individual Protection Measures

Personal protective equipment:	Gloves. Safety Glasses. Protective Clothing.

Materials for protective clothing:	Standard issue work clothes, which may include apron, antistatic safety shoes or boots as necessary.
Eye protection:	Use good industrial practice to avoid eye contact. Wear Safety glasses with side-shields. Use a full-face shield when processing molten material. Processing of this product releases vapors or fumes which may cause eye irritation. Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.
Skin:	Processing of this product releases vapors or fumes which may cause skin irritation. Minimize skin contamination by following good industrial hygiene practice. Wearing protective gloves is recommended. Use heat protective gloves when handling hot, molten product. Wash hands and contaminated skin thoroughly after contact with processing fumes or vapors or after handling the material.
Respiratory protection:	Avoid breathing dust. Avoid breathing processing fumes or vapors. During handling: if dust is generated, a parliculate pre-filter is recommended and for high airborne dust concentrations, a cartridge designed for nuisance dust is recommended. During high temperature processing: use local exhaust ventilation when available. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

SECTION 9: Physical and Chemical Properties

9(a)	**Physical state:**	Solid
	Appearance/Form:	Pellets; porous to dense
	Color:	Various: tan, copper, gray or black - dependent on filler material
9(b)	**Odor:**	Essentially odorless, may be faint odor
9(c)	**Odor threshold:**	Not determined
9(d)	**pH:**	No data available
9(e)	**Melting point/range:**	428 °F (220 °C)
	Freezing point:	Not Applicable
9(f)	**Boiling point:**	Not Applicable
9(g)	**Flash point:**	Not determined
9(h)	**Evaporation rate:**	Not Applicable, Solid
9(i)	**Flammability (solid, gas):**	See GHS Classification in Section 2
9(j)	**Upper / Lower Flammability:**	No data available
	Explosive Limits:	Not determined
9(k)	**Vapor pressure:**	Not Applicable, Solid

9(l)	**Vapor Density:**	Not Applicable, Solid
9(m)	**Relative density:**	Specific Gravity: 1 - 11

9(n)	**Solubility (water):**	Insoluble
	Solubility (other):	Not Applicable
9(o)	**Partition Coefficient:**	No data available
9(p)	**Auto-Ignition Temperature:**	Not Applicable
9(q)	**Decomposition temperature:**	Not Applicable
9(r)	**Viscosity, Kinematic:**	Not Applicable
	Viscosity, Dynamic:	Not Applicable
Other	**Oxidizing properties:**	No data available

SECTION 10: Stability and Reactivity

10(a)	**Reactivity:**	Non-reactive. The product is stable under normal handling and storage conditions.
10(b)	**Chemical Stability:**	Stable under ambient conditions. Hazardous polymerization does not occur.
10(c)	**Possibility of Hazardous Reactions:**	Non-reactive. The product is stable under normal handling and storage conditions.
10(d)	**Conditions to Avoid:**	Avoid prolonged exposure to heat or UV light since this may affect product properties. Product will burn when exposed to continuous sources of ignition. See Hazardous Decomposition below.
10(e)	**Incompatible Materials:**	Avoid contact with strong acids, bases, and oxidizing agents.
10(f)	**Hazardous Decomposition:**	Hazardous vapors from heated product are not expected to be generated under normal processing temperatures and conditions. No hazardous decomposition under ambient temperatures. Although highly dependent on temperature and environmental conditions, a variety of thermal decomposition products may be present if the product is overheated, is smoldering, or catches fire. Thermal decomposition giving toxic, flammable, and / or corrosive products: Carbon Oxides, Nitrogen Oxides (NOX).

SECTION 11: Toxicological Information

Polyamide 6

11(a)	**Routes of Exposure**	
	Aspiration hazard:	Not classified
	Skin corrosion/irritation:	Not classified
	Serious eye damage/irritation:	Not classified
	Respiratory or skin sensitization:	Not classified
11(b)	**Symptoms**	See Section 4
11(c)	**Effects - Short and Long Term**	
	Germ Cell Mutagenicity:	Not classified
	Carcinogenicity:	Not classified; (No data available)

11(d) Toxicity

Toxicity Overview:

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
25038-54-4	Polyamide 6	None	
7440-33-7	Tungsten	Systemic effects	Eyes, Skin, Respiratory system, blood and blood forming system.

Additional Health Hazard Informatic

Tungsten 7440-33-7: Prolonged or repeated breathing of this material may result in chronic bronchitis. Exposure to freshly formed fumes from heated metal may cause "metal fume fever".

Additional Health Hazard Information:

Acute Toxicity:	No data available. LC50 Inhalation - mouse - 30 h - 11,000 mg/m^3
Reproductive Toxicity:	Not classified; (No data available)
Specific target organ toxicity (single exposure):	Not classified; (No data available)
Specific target organ toxicity (repeated exposure):	Not classified; (No data available)

11(e) Listings

IARC	Not listed or not regulated
OSHA	Not listed or not regulated
NTP	Not listed or not regulated
ACGIH	Not listed or not regulated

SECTION 12: Ecological Information

12(a)	**Ecotoxicity**	Not expected to be toxic to aquatic or other organisms because of insolubility.
12(b)	**Persistence and degradability**	Not expected to be biodegradable.
12(c)	**Bioaccumulative potential**	Does not bioaccumulate.
12(d)	**Mobility in Soil**	No data available
12(e)	**Other Adverse effects**	No data available

SECTION 13: Disposal Considerations

Where possible, recycling is preferred to disposal or incineration. If recycling is not an option, incinerate or dispose of in accordance with federal, state, and local regulations. Pigmented, filled, and/or solvent laden product may require special disposal practices in accordance with federal, state, and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal, and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

SECTION 14: Transport Information

In accordance with DOT and IMDG, this product is not regulated for transport.

14(a)	UN Number:	None
14(b)	UN Number Shipping Name:	None
14(c)	Transport Hazard Class(es):	None
14(d)	Packing Group:	None
14(e)	Environmental Hazards:	Not a marine pollutant
14(f)	Transport in Bulk:	None
14(g)	Special Precautions:	None

SECTION 15: Regulatory Information

US Federal Regulations

SARA - Section 302 Extremely Hazardous Chemicals
Unless specifically identified in this section, the components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.
None

SARA - Section 311/312 Hazard Classes	
Tungsten	Acute health hazard, Chronic health hazard

SARA - Section 313 Toxic Chemicals
Unless specifically identified in this section, this material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.
None

CERCLA - Comprehensive Environmental Response, Compensation, & Liability Act - Reportable Quantity (RQ)
Unless specifically identified in this section, the components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.
None

Chemical Inventory Status

European Inventory of Existing Commercial Chemical	EU, EINECS	Conforms
United States TSCA (Toxic Substances Control Act) Inventory	TSCA	Listed
Canadian Domestic Substances List	DSL	Listed
China. Inventory of Existing Chemical Substances Produced or Imported in China	IECSC (CN)	Conforms
Japan. ENCS - Existing & New Chemical Substances Inventory	ENCS (JP)	Conforms
Korea. Toxic Chemical Control Law List	TCCL (KR)	Conforms
Philippines Inventory of Chemicals and Chemical Substances	PICCS (PH)	Conforms
Australian Inventory of Chemical Substances	AICS	Conforms
New Zealand Inventory of Chemicals	NZIoC	Conforms

US State Regulations

Massachusetts Right to Know	Not listed	
Pennsylvania Right to Know	Chemical Name:	Nylon 6
	CAS Number	25038-54-4
New Jersey Right to Know	Chemical Name:	Nylon 6
	CAS Number	25038-54-4
California Prop. 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	

SECTION 16: Other Information

Revision Date: October 17, 2016

Version Number: 03

Ecomass® is a registered trademark.

ABBREVIATIONS / ACRONYMS / REFERENCES:

AND EU Agreement for the International Transport of Dangerous Goods by Inland Waterways, as amended

ADR EU Agreement for the Intemational Carriage of Dangerous Goods by Road, as amended

CAS Chemical Abstracts Services (Division of the American Chemical Society)

GHS Globally Harmonized System of Classification and Labelling of Chemicals, as amended

HMIS Hazardous Materials Identification System

lATA International Air Transport Association

ICAO International Civil Aviation Organization

IMDG	International Maritime Code for Dangerous Goods, as amended
LCSO	Lethal Concentration of *50* Percent of Organisms
MARPOL	International Convention for the Prevention of Pollutants from Ships, 1973, as amended
MHLW	Japanese Ministry of Health, Labor, and Welfare
NFPA 704	National Fire Protection Association
OE	Oil Extended
OEL	Occupational Exposure Limit
RID	EU Standards Regulations Concerning the International Transport of Dangerous Goods by Rail
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nation
USP	United States Pharmacopeia for the Testing of Biological Endpoints for Medical Devices

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