

SAFETY DATA SHEET

MelaminebyDSM™

DSM

MelaminebyDSM™ GPH and Melafine®

1. Identification of the substance/preparation and company/undertaking

Product name : MelaminebyDSM™ GPH and Melafine®**Chemical product name** : 2,4,6-Triamino-1,3,5-triazine**Chemical formula** : C₃H₆N₆**Supplier** : DSM Melamine EuropeP.O. Box 43
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2. Composition/information on ingredients

Substance/preparation : Substance

Chemical name	CAS no.	%	EC no. *	Classification
2,4,6-Triamino-1,3,5-triazine See section 16 for the full text of the R-phrases declared above	108-78-1	100	203-615-4	Not classified.

* EC no. means EINECS or ELINCS number.

3. Hazards identification

Human health hazards : Dust may cause mechanical irritation.**Environmental hazards** : Based on the available data of this product no hazardous properties are known.**Physical/chemical hazards** : Non-combustible. Possibility of explosion exists under dusty conditions.

4. First-aid measures

Effects and symptoms

- Inhalation** : Over-exposure by inhalation may cause respiratory irritation. (coughing)
Ingestion : There is no known acute effect after over-exposure to this product.
Skin contact : There is no known acute effect after over-exposure to this product.
Eye contact : May cause eye irritation. (redness).

First-aid measures

- General** : Move exposed person to fresh air.
Inhalation : If inhaled, remove to fresh air. Obtain medical attention if symptoms occur.
Ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Obtain medical attention if symptoms occur.
Skin contact : Wash with soap and water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur.
Eye contact : Rinse with plenty of running water. Obtain medical attention if symptoms occur.
First aid facilities : No special recommendations.

5. Fire-fighting measures

Extinguishing media

Small fire

- Suitable** : Non-combustible. Use extinguishing media suitable for surrounding materials.

Large fire

- Suitable** : Non-combustible. Use extinguishing media suitable for surrounding materials.

Unusual fire/explosion hazards

- : No specific hazard.

Hazardous thermal decomposition products

- : In case of fire, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, nitrogen oxides (NO, NO₂), ammonia (NH₃), amines. Hydrogen cyanide (HCN) (> 600 °C).

Special fire-fighting procedures

- : Fight fire from protected location or maximum possible distance. Keep the area surrounding the fire cool.

Protection of fire-fighters

- : Wear suitable protective clothing. Self-contained breathing apparatus.

6. Accidental release measures

Personal precautions

- : Avoid creating dusty conditions and prevent wind dispersal. Use suitable protective equipment (section 8).

Environmental precautions

- : No special measures required.

Clean-up Methods

Small spill and leak

- : Vacuum or sweep up material and place in a designated labelled waste container. Clean up affected area with a large amount of water.

Large spill and leak

- : Vacuum or sweep up material and place in a designated labelled waste container. Recycle, if possible. Prevent formation of dust clouds. Clean up affected area with a large amount of water.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling

- : Use with adequate ventilation. Local exhaust ventilation should be provided. Avoid creating dusty conditions and prevent wind dispersal.

Storage

- : Keep away from incompatible materials and avoid specific conditions (See section 10). Do not stack more than two bulk bags > 1000 kg on top of each other in connection with the risk of ripping. Keep in a dry place.

Packaging materials

- Suitable** : Wood, Plastic.

Note: See section 10 for stability and reactivity

8. Exposure controls/personal protection

- Engineering measures** : Use only with adequate ventilation. Local exhaust ventilation should be provided.
- Hygiene measures** : When using do not eat, drink or smoke. Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.
- Personal protective equipment - Production scale**
- Respiratory system** : Wear dust protection mask P2.
- Skin and body** : Working clothes.
- Eyes** : Safety glasses with side shields.
- Hands** : Wear suitable gloves.
- Recommended material (s)** : 4-8 hours (breakthrough time): PVC, neoprene.

Advice on personal protection is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual exposure situation.

9. Physical and chemical properties


- Physical state** : Solid. (powder (Crystalline))
- Colour** : White.
- Odour** : Odourless.
- pH** : 8.2 to 9.4 (Concentration 10%)
- Boiling point** : Decomposes. >280 °C
- Melting point** : Sublimes. 354 °C
- Flash point** : >280 °C
- Lower explosion limit** : Not applicable.
- Upper explosion limit** : Not applicable.
- Vapour pressure at 20°C** : <0.02 kPa
- Density (g/cm³)** : 1.57 g/cm³ (20°C)
- Solubility in water** : 0.3 g/100 ml (20°C)
- Solubility** : Very slightly soluble in cold water
- Vapour/gas density** : 4.34 (Air = 1)
- Molecular weight** : 126.15 g/mole
- Minimum ignition energy** : >1000 mJ
- Dust explosion class** : St1

10. Stability and reactivity

- Stability** : Stable under recommended storage and handling conditions (see section 7).
- Conditions to avoid** : Keep away from heat, sparks and flame. Temperatures above 300°C.
- Materials to avoid** : No special recommendations.

11. Toxicological information

Acute toxicity

Ingredient name	Test	Species	Route	Result
 4,6-Triamino-1,3,5-triazine	LD ₅₀	Rat	Oral	3161 mg/kg
	LD ₅₀	Mouse	Oral	3296 mg/kg
	LC ₅₀	Rat	Inhalation	3248 mg/m ³ (8 hour(s))

- Irritation** : Slightly hazardous in case of eye contact (irritant).
- Chronic toxicity**
- IARC** : IARC classified 3 (Not classifiable carcinogenic to human).
- Mutagenic effects** : Non-mutagenic for bacteria and/or yeast.

Note: See section 4 for effects and symptoms

In this heading, only relevant information is presented.

12. Ecological information

Ecotoxicity data

Ingredient name	Test	Period	Result
2,4,6-Triamino-1,3,5-triazine	Fish (LC ₅₀)	96 hour(s)	>3000 mg/l
	Daphnia magna (EC ₅₀)	48 hour(s)	>2000 mg/l
	Algae (EC ₅₀)	96 hour(s)	940 mg/l

Ingredient name	Aquatic half-life	Photolysis	Biodegradability
2,4,6-Triamino-1,3,5-triazine	-	-	Not readily

Ingredient name	LogP _{ow}	Bio-concentration factor	Bioaccumulative potential
2,4,6-Triamino-1,3,5-triazine	-1.14	<0.38	low

Mobility : For data on physical state, solubility and vapour pressure see section 9.

In this heading, only relevant information is presented.

13. Disposal considerations

Methods of disposal (waste of residues; contaminated packaging) : Waste must be disposed of in accordance with national and local environmental regulations.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
ADNR Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-

PG* : Packing group

15. Regulatory information

EU regulations

Risk phrases : According to EU Directives 67/548/EEC and 1999/45/EC this product does not require labelling.

16. Other information

Internal code : WW8553

History

Date of printing : 28 September 2006.

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Notice to reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

Training advice : Before handling this substance/preparation, the personnel involved should be instructed by means of this safety data sheet.

Sources of key data : Literature data and/or investigation reports are available through the manufacturer.

Alterations compared to the previous version : Alterations compared to the previous version are marked with a little (blue) triangle.