



Safety Data Sheet (SDS)

Revision / Review Date: 2/3/15

1. Chemical Product and Company Identification

Product Name:	DOTG
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	Diotolylguanidine
Substance name/Synonym:	1,3-Di-o-tolylguanidine/N,N'-Di-o-tolylguanidine
REACH Reg No:	No registration number is given yet for this phase-in substance since the transition period for its registration according to Article 23 of REACH has not yet expired.
CAS No:	97-39-2
EC No.:	202-577-6
Product Use:	Used as rubber accelerator in rubber goods manufacture.

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

<u>Classification of the substance or mixture:</u>	Classification according to Regulation (EC) NO 1272/2008(CLP) Acute toxicity, Category 3; H301 Eye irritation, Category 2: H319
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The following hazard statements are applicable only to the EU regulations and not the US GHS regulation: H400, H410.

Hazard pictogram:



Signal word:

Danger

Hazard statement:

H301 toxic if swallowed
H319: causes serious eye irritation.
H350: May cause cancer.

Precautionary statement:

Prevention:

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/ face protection.

Response:

IF SWALLOWED: immediately call a POISON Center or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention.

Supplemental Hazard information (EUH):

No information available.

3. Composition / Information on Ingredients

Mixture information:

Hazardous ingredient:

Substance name	CAS No.	EC No.	Molecular formula	Classification under DSD	Classification under CLP	% (w/w)
1,3-di-o-tolylguani	97-39-2	202-577-6	C ₁₅ H ₁₇ N ₃	T; R25	Acute Tox. 3 - Oral; H301	95 - 99
dine				Xi; R36	Eye Irrit. 2; H319	

Remark: Full text of R-phrases and H-statements: see section 16.

The rest unspecified ingredients are impurities, and they are not hazard.

4. First Aid Measures

Inhalation:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Eyes:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.

Skin:

Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation persists.

Ingestion:

Do not induce vomiting. Immediately give two glasses of water, a little at a time. Never give anything by mouth to an unconscious person. Immediately call a POISON Center or doctor/physician. If vomiting occurs spontaneously, lower head below waist to prevent fluid from entering the lungs.

Notes of the doctor:

Treat symptomatically and supportively.

Most important symptoms and effects,

<u>both acute and delayed:</u>	Toxic if swallowed. Eye irritant. May be a skin irritant and sensitizer. Dust may irritate the nose, throat and lungs.
<u>Indication of immediate medical attention and special treatment needed:</u>	Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material. Attending physician should treat exposed patients symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam

Unsuitable Extinguishing Media:

Do not use water jet.

Special hazards arising from the substance or mixture:

As with any dry material, pouring or allowing to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable material which may come in contact with the material or its containers.

Special Fire Fighting Procedures:

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear full protective clothing including self-contained breathing equipment. Prevent fire-fighting water from entering surface water or groundwater.

Hazardous Combustion Products:

Carbon oxides, nitrogen oxides, ammonia, hydrogen cyanide.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures.

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and material for containment and clean up:

Small Spill: Put spilled solid in a waste disposal container.
Large Spill: Evacuate area of nonessential personnel. Use safety glasses and gloves. Respiratory protection is required only if a dust is generated. Scoop or shovel spilled solids into containers. Avoid creating a dust. Prevent spilled product or contaminated wash water from entering drinking water supplies or streams.

7. Handling and Storage:

Precautions to be taken in handling:

DO NOT breathe dust. Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Use explosion proof equipment. Ground all equipment containing material.

Storage:

Keep container tightly closed. Keep container in a cool, well ventilated area.

8. Exposure Controls / Personal Protection

Occupational exposures limit values:

There are no occupational exposure limit values established for the substance.

DNEL(Derived No Effect Level) for workers:

There are no DNEL values for workers available for the substance.

DNEL(Derived No Effect Level) for the general population:

There are no DNEL values for the general population available for the substance. PNEC(Predicted No Effect Concentration) values: There are no PNEC values available for the substance.

Exposure controls

Appropriate engineering controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal protective equipment:

Eye and face protection:

Safety goggles or eye protection in combination with breathing protection.

Skin protection:

Use protective rubber gloves and protective clothing. Experience says that polychloroprene, nitrile rubber, butyl rubber, fluoro-caoutchouc, and polyvinyl chloride are suitable as glove materials for protection against un-dissolved solids.

Respiratory protection:

Dust mask recommended. Half mask with a particle filter.

Environmental exposure controls:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Industrial hygiene:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. Physical and Chemical Properties

<u>Appearance:</u>	Solid, powder
<u>Colour:</u>	White to light pink
<u>Odour:</u>	Not determined.
<u>pH:</u>	No data available.
<u>Melting point:</u>	179°C
<u>Boiling point:</u>	Not determined.
<u>Density:</u>	1.1 g/cm ³ at 20 °C
<u>Specific gravity:</u>	1.2 (Water = 1)
<u>Vapour pressure:</u>	No data available.
<u>Partition coefficient (n-octanol/water):</u>	No data available.
<u>Solubility(ies):</u>	Insoluble in cold water. Slightly soluble in warm water. Moderately soluble in acetone.
<u>Flash point:</u>	No data available.
<u>Explosion limits:</u>	Not determined.
<u>Oxidizing properties:</u>	No data available.
Other information	
Residues on 150 µm sieve:	0.1% max.
Ash content:	0.3% max.
Loss on drying:	0.3% max.

10. Stability and Reactivity

<u>Reactivity:</u>	Stable under recommended storage and handling conditions (see section 7)
<u>Stability:</u>	This product is stable under normal temperatures and pressures.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizing agents, strong acids
<u>Conditions to Avoid:</u>	Avoid strong heating. Avoid contact with strong oxidants.
<u>Hazardous decomposition products:</u>	Carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂) ammonia, hydrogen cyanide.

11. Toxicological Information

Acute toxicity:

Acute Oral toxicity:	LD ₅₀ = 134 mg/kg (rat);
Acute Inhalation toxicity:	No data available.
Acute Dermal toxicity:	LD ₅₀ = 4417 mg/kg (rabbit);

Skin corrosion/irritation:

May cause skin irritation.

Serious eye damage/irritation:

This product is an eye irritant. Causes serious eye irritation.

Respiratory or skin sensitization:

Prolonged or repeated contact with skin can cause allergic reactions in susceptible persons.

Not a sensitizer in animals (guinea-pig).

CMR effects (Carcinogenicity, Mutagenicity and Toxicity for Reproduction):

Carcinogenic effects: No classification data on carcinogenic properties of this material is available. This product can contain up to 1000 ppm of orthotoluidine, which may cause cancer.

Mutagenic effects: No classification data on mutagenicity properties of this material is available.

Toxicity for reproduction: No classification data available.

STOT-single exposure and repeated exposure:

Not classified as specific target organ toxicant, single exposure or repeated exposure. The toxicological properties have not been fully investigated.

Additional Information:

No aspiration toxicity classification.

RTECS No: MF1400000

12. Ecological InformationToxicity:

Acute toxicity to fish: No data available.

Acute toxicity to daphnia: No data available

Acute toxicity to algae: No data available.

Persistence and degradability:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Bioaccumulative potential:

Based on best current information, there is no data known associated with this product.

Mobility in soil:

Based on best current information, there is no data known associated with this product.

Results of PBT and vPvB assessment:

PBT/vPvB assessment information is not available as the chemical safety assessment not conducted.

13. Disposal Considerations

Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations.

14. Transport InformationLand transport (ADR/RID/GGVSE)

UN-No.:	2811
Official transport designation:	TOXIC SOLID, ORGANIC, N.O.S. (1,3-di-o-tolylguanidine)
Class:	6.1
Classification Code:	T2
Packing group:	III
Hazard label:	6.1

Sea transport (IMDG-Code/GGVSee)

Proper Shipping Name:	TOXIC SOLID, ORGANIC, N.O.S. (1,3-di-o-tolylguanidine)
Class:	6.1
UN-No.:	2811
Packing group:	III
EMS-No:	F-A, S-A
Marine pollutant:	No

Air transport (ICAO- TI/IATA-DGR)

Proper Shipping Name:	TOXIC SOLID, ORGANIC, N.O.S. (1,3-di-o-tolylguanidine)
Class:	6.1
UN-No.:	2811
Packing group:	III

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulation:

Authorizations:	No information available.
Restrictions on use:	No information available.
EINECS:	CAS# 97-39-2 is listed in the inventory.
DSD (67/548/EEC):	CAS# 97-39-2 is not listed in the Annex I.

Other chemical regulation:

USA - TSCA:	CAS# 97-39-2 is listed in the inventory.
Canada -DSL:	CAS# 97-39-2 is listed in the inventory.
Australia -AICS:	CAS# 97-39-2 is listed in the inventory.
Korea -ECL:	CAS# 97-39-2 is listed in the inventory.
Japan -ENCS:	CAS# 97-39-2 is listed in the inventory.
China -IECSC:	CAS# 97-39-2 is listed in the inventory.

Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.