

Material Safety Data Sheet

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REC'D MAR 10 2000

MC-2529 TRANE GRAY A/D

MSDS No.

Not available.

1. Product and Company Identification

PA100087

Product Trade Name	MC-2529 TRANE GRAY A/D	Validation Date	3 March 2000
Synonyms	MC-2529 TRANE GRAY A/D MC-2529 TRANE GRAY A/D	Product Code	222-286
Chemical Family	Not available.	Internal Code	Not available.
Packaging	Not available.		
Product Type	Not available.		
Product Use	Not available.	Description	MC-2529 TRANE GRAY A/D ENAMEL

Manufactured/ Supplied LILLY - INDIANAPOLIS
604 S. CALIFORNIA STREET
INDIANAPOLIS IN 46225
Daytime Phone: 317-634-8512
Emergency Phone: 800-424-9300

2. Composition and Information on Hazardous Ingredients

Ingredient Name	CAS #	% by Weight	Exposure Limits	Vapor Pressure	LEL-UEL
1) MAGNESIUM SILICATE HYDRATE	14807-96-6	4-8	TWA: 2 (mg/m ³) from ACGIH (TLV) [United States] [1996] Inhalation TWA: 2 (mg/m ³) from NIOSH [United States] [1994] Inhalation Respirable. TWA: 2 (mg/m ³) from OSHA (PEL) [United States] [1989] Inhalation Respirable.	Not applicable.	Not available.
2) RUTILE TITANIUM DIOXIDE	13463-67-7	8-13	TWA: 10 (mg/m ³) from ACGIH (TLV) [United States] [1996] Inhalation TWA: 10 (mg/m ³) from OSHA (PEL) [United States] [1989] Inhalation Total.	Not applicable.	Not available.
3) CARBON BLACK	1333-86-4	0-1	TWA: 3.5 (mg/m ³) from ACGIH (TLV) [United States] [1994] Inhalation TWA: 3.5 (mg/m ³) from NIOSH [United States] [1994] Inhalation TWA: 3.5 (mg/m ³) from OSHA (PEL) [United States] [1989] Inhalation	Not applicable.	Not available.
4) TOLUENE	108-88-3	4-8	TWA: 50 (ppm) from ACGIH (TLV) [United States] [1996] SKIN TWA: 100 STEL: 150 (ppm) from NIOSH [United States] [1994] Inhalation TWA: 100 STEL: 150 CEIL: 300 (ppm) from OSHA (PEL) [United States] [1989] Inhalation	6.3 kPa (@ 20°C)	Not available.
5) METHYL N-AMYL KETONE (2-HEPTANONE)	110-43-0	8-13	TWA: 50 (ppm) from ACGIH (TLV) [United States] [1994] Inhalation	0.3 kPa (@ 20°C)	Not available.

6) N-BUTANOL	71-36-3	4-8	TWA: 100 (ppm) from NIOSH [United States] [1994] Inhalation TWA: 100 (ppm) from OSHA (PEL) [United States] [1989] Inhalation CEIL: 50 (ppm) from ACGIH (TLV) [United States] [1994] SKIN 50 (ppm) from NIOSH [United States] [1994] SKIN TWA: 100 CEIL: 50 (ppm) from OSHA (PEL) [United States] [1989] SKIN	0.7 kPa (@ 20°C)	Not available.
7) ALIPHATIC NAPHTHA	64742-89-8	20-30	Not available.	2.7 kPa (@ 20°C)	Not available.
8) ALIPHATIC NAPHTHA	64742-89-8	8-13	Not available.	2.7 kPa (@ 20°C)	Not available.

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Note: See section 8 for occupational exposure limits and section 11 for LC50/LD50 information.

3. Hazards Identification

Primary Hazards and Critical Effects	: WARNING! CANCER HAZARD CONTAINS MATERIAL WHICH CAN CAUSE CANCER HIGHLY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LUNGS, NERVOUS SYSTEM, LIVER, MUCOUS MEMBRANES, PERIPHERAL NERVOUS SYSTEM, GASTROINTESTINAL TRACT, CARDIOVASCULAR SYSTEM, RESPIRATORY TRACT, SKIN, EYES, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA, NOSE, SINUSES, THROAT. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL WHICH MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA. Risk of cancer depends on duration and level of exposure. Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Avoid exposure during pregnancy. Wash thoroughly after handling.
Physical/Chemical hazards	: Highly flammable.
Human Health Hazards	: Irritating to eyes, respiratory system and skin. May cause cancer.
Environmental Hazards	: Not applicable.

4. First Aid Measures

Eye contact	: Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.
Skin contact	: Wash with soap and water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention.
Inhalation	: Remove to fresh air. If not breathing, administer artificial respiration and seek medical attention.
Ingestion	: Wash out mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician. Seek immediate medical attention.

5. Fire-Fighting Measures

Extinguishing Media	: In case of fire, use water spray (fog), foam, dry chemical, or CO ₂ . Use foam or all purpose dry chemicals to extinguish.
Fire-Fighting Procedures	: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Fire/Explosion Hazards	: Highly flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Hazardous Decomposition Products	: These products are carbon oxides (CO, CO ₂). Some metallic oxides.

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6. Accidental Release Measures

- Personal Precautions** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). Do not touch or walk through spilled material.
- Environmental Precautions and Clean-up Methods** : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways.

Note: See section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and Storage

- Handling** : Risk of cancer depends on duration and level of exposure. Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Avoid exposure during pregnancy. Wash thoroughly after handling. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
- Packaging Materials** : Use original container.

8. Exposure Controls and Personal Protection

Occupational Exposure Limits

- | | |
|--|---|
| 1) MAGNESIUM SILICATE HYDRATE | TWA: 2 (mg/m ³) from ACGIH (TLV) [United States] [1996] Inhalation
TWA: 2 (mg/m ³) from NIOSH [United States] [1994] Inhalation Respirable.
TWA: 2 (mg/m ³) from OSHA (PEL) [United States] [1989] Inhalation Respirable. |
| 2) RUTILE TITANIUM DIOXIDE | TWA: 10 (mg/m ³) from ACGIH (TLV) [United States] [1996] Inhalation
TWA: 10 (mg/m ³) from OSHA (PEL) [United States] [1989] Inhalation Total. |
| 3) CARBON BLACK | TWA: 3.5 (mg/m ³) from ACGIH (TLV) [United States] [1994] Inhalation
TWA: 3.5 (mg/m ³) from NIOSH [United States] [1994] Inhalation
TWA: 3.5 (mg/m ³) from OSHA (PEL) [United States] [1989] Inhalation |
| 4) TOLUENE | TWA: 50 (ppm) from ACGIH (TLV) [United States] [1996] SKIN
TWA: 100 STEL: 150 (ppm) from NIOSH [United States] [1994] Inhalation
TWA: 100 STEL: 150 CEIL: 300 (ppm) from OSHA (PEL) [United States] [1989] Inhalation |
| 5) METHYL N-AMYL KETONE
(2-HEPTANONE) | TWA: 50 (ppm) from ACGIH (TLV) [United States] [1994] Inhalation
TWA: 100 (ppm) from NIOSH [United States] [1994] Inhalation
TWA: 100 (ppm) from OSHA (PEL) [United States] [1989] Inhalation |
| 6) N-BUTANOL | CEIL: 50 (ppm) from ACGIH (TLV) [United States] [1994] SKIN
CEIL: 50 (ppm) from NIOSH [United States] [1994] SKIN
TWA: 100 CEIL: 50 (ppm) from OSHA (PEL) [United States] [1989] SKIN |
| 7) ALIPHATIC NAPHTHA | Not available. |
| 8) ALIPHATIC NAPHTHA | Not available. |

- Engineering Controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

- Monitoring Methods and References** : Not available.

Personal Protective Equipment

- Respiratory System** : Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. If necessary Be sure to use a MSHA/NIOSH approved respirator or equivalent.
- Skin and Body** : Wear appropriate protective clothing to prevent skin contact.
- Hands** : Use chemical resistant, impervious gloves. If necessary.
- Eyes** : Safety goggles are considered minimum protection.

9. Physical and Chemical Properties

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Physical State and Appearance	: Liquid.
Color	: Not available.
Odor	: Not available.
pH	: Neutral.
Molecular Weight	: Not applicable.
Molecular Formula	: Not applicable.
Melting Point	: May start to solidify at -34.9398°C (-30.9°F) based on data for: METHYL N-AMYL KETONE (2-HEPTANONE). Weighted average: -66.39°C (-87.5°F)
Boiling Point	: The lowest known value is 110°C (230°F) (TOLUENE). Weighted average: 118.9°C (246°F)
Evaporation Rate	: The highest known value is 2.3999 (TOLUENE) Weighted average: 1.3 compared to Butyl Acetate
Volatility	: Not available.
Vapor Density	: The highest known value is 4 (Air = 1) (METHYL N-AMYL KETONE (2-HEPTANONE)). Weighted average: 3.82 (Air = 1)
Vapor Pressure	: The highest known value is 47 mm of Hg (@ 20°C) (TOLUENE). Weighted average: 18.18 mm of Hg (@ 20°C)
Density	: Weighted average: 0.83 g/cm ³
Specific Gravity	: Weighted average: 1.01 (Water = 1)
Solubility	: Partially soluble in cold water.
Partition Coefficient (LogKow)	: Not available.
Viscosity	: Not available.
Auto-Ignition Temperature	: The lowest known value is 343°C (649.4°F) (N-BUTANOL).
Flash Point	: CLOSED CUP: -8.8°C (16°F).
Explosibility	: Not available.
Explosion Limits	: Not available.

10. Stability and Reactivity

Stability	: The product is stable.
Conditions and Materials to Avoid	: Slightly reactive to reactive with oxidizing agents, acids, alkalis.
Hazardous Decomposition Products	: The products of degradation are less toxic than the product itself.
Hazardous Polymerization	: Not available.

11. Toxicological Information

Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
1) CARBON BLACK	LD50	>15400 mg/kg	Oral	rat
2) TOLUENE	LD50	636 mg/kg	Oral	rat
	LDLo	50 mg/kg	Oral	human
3) METHYL N-AMYL KETONE (2-HEPTANONE)	LD50	1670 mg/kg	Oral	rat
	LD50	730 mg/kg	Oral	mouse
4) N-BUTANOL	LD50	790 mg/kg	Oral	Rat
	LD50	2680 mg/kg	Oral	Mouse
	LD50	2680 mg/kg	Oral	mouse
	LD50	3400 mg/kg	Dermal	rabbit
	LDLo	1760 mg/kg	Oral	dog

Routes of Entry : Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Acute Effects

Inhalation	: Moderately irritating to the respiratory system.
Ingestion	: Harmful if swallowed.
Skin Contact	: Moderately irritating to the skin. Practically non-toxic in contact with skin.
Eye Contact	: Moderately irritating to the eyes.

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Chronic Effects

- Adverse Effects** : Not available.
- Target Organs** : Contains material which causes damage to the following organs: kidneys, lungs, the nervous system, liver, mucous membranes, peripheral nervous system, gastrointestinal tract, cardiovascular system, upper respiratory tract, skin, eyes, central nervous system (CNS), eye, lens or cornea, nose/sinuses, throat.
- Carcinogenic Effects** : Classified 1 (Proven for human.) by IARC [MAGNESIUM SILICATE HYDRATE]. Classified A4 (Not classifiable for human or animal.) by ACGIH [MAGNESIUM SILICATE HYDRATE]. Classified + (Proven.) by NIOSH [CARBON BLACK]. Classified 2B (Possible for human.) by IARC [CARBON BLACK]. Classified None. by OSHA [CARBON BLACK]. Classified A4 (Not classifiable for human or animal.) by ACGIH [CARBON BLACK].
- Mutagenic Effects** : Not available.
- Developmental and Teratogenic Effects** : Not available.
- Reproductive Effects** : Classified Reproductive system/toxin/female, Reproductive system/toxin/male [POSSIBLE] [TOLUENE].

- Other Information** : Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

12. Ecological Information**Ecotoxicity Data**

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Our database contains no special consideration on the product			

- Environmental Hazards** : No known significant effects or critical hazards.
- Environmental Fate** : Not available.

13. Disposal Consideration

- Waste Classification** : Not available.
- Waste Handling and Disposal** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information**United States**

- Shipping Description** : Not available.
- Packaging Instruction** : Not available.
- Special Provisions** : Not available.
- Remarks** : Not available.

Canada

- Shipping Description** : Not available.
- Regulated Limit** : Not available.
- Consumer Commodity** : Not available.
- Limited Quantity** : Not available.
- Special Provisions** : Not available.
- Remarks** : Not available.

15. Regulatory Information**EU Regulations**

- Hazard Symbol(s)** : F, T
- Risk Phrases** : R11- Highly flammable.
R36/37/38- Irritating to eyes, respiratory system and skin.
R45- May cause cancer.

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Safety Phrases : S2- Keep out of the reach of children.
 S46- If swallowed, seek medical advice immediately and show this container or label.
 S53- Avoid exposure - obtain special instructions before use.

US Regulations

Federal and State Regulations : California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: TOLUENE
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: COBALT;
 CRYSTALLINE SILICA
 TSCA 12(b) one time export: N-BUTANOL; METHYL ETHYL KETOXIME
 This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.
 This information must be included in all MSDSs that are copied and distributed for this material.:
 TOLUENE 4.31368%; N-BUTANOL 5.4721%
 CERCLA: Hazardous substances.: TOLUENE: 1000 lbs. (453.6 kg); N-BUTANOL;
 Clean air act (CAA) 112 accidental release prevention: TOLUENE.

HMIS (U.S.A.)

Health	*	2
Fire Hazard		3
Reactivity		0
Personal Protection		X

National Fire Protection Association (U.S.A.)



Consult your supervisor for special handling instructions.

Canadian Regulations

WHMIS : CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
 CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
 Canadian NPRI : Canadian NPRI: TOLUENE; N-BUTANOL
 Provincial : No products were found.

16. Other Information

Remarks : Not available.
 References : Not available.
 Validated on 3/3/2000.
 Version : 1.0
 Date of Printing : 3/3/2000. Date of Previous Issue : No Previous Validation.

Indicates information that has changed from previously issued version.

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