



ATUL LIMITED

Bulk Chemicals & Intermediates Division

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MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCT IDENTIFICATION		
TRADE NAME	Resorcinol	
CHEMICAL NAME	Resorcin; 1-3 Dihydroxybenzene; m-Benzenediol; 1,3-Benzenediol	
EMERGENCY CONTACT NO.	(02632) 233261 to 233265	
SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS		
INGREDIENTS	CAS #	TLV/PEL
Resorcinol : 98-100%	108-46-3	Hazardous TLV : 10 ppm STEL : 20 ppm
SECTION 3 HAZARDS IDENTIFICATION		
DANGER! MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. MAY CAUSE METHEMOGLOBINEMIA. AFFECTS CARDIOVASCULAR SYSTEM, CENTRAL NERVOUS SYSTEM, BLOOD, SPLEEN, LIVER AND KIDNEYS. CAUSES SEVERE IRRITATION TO SKIN AND EYES. CAUSES IRRITATION TO RESPIRATORY TRACT. MAY CAUSE ALLERGIC SKIN		
SECTION 4 POTENTIAL HEALTH EFFECTS/EFFECTS OF OVEREXPOSURE		
EYE CONTACT	Strong irritant. Can cause permanent damage.	
SKIN CONTACT	Strong irritant to skin, causing severe dermatitis and loss of superficial layers of skin. Can be absorbed through skin with severe exposures producing symptoms paralleling ingestion and enlargement of local lymph glands. May cause allergic skin reactions.	
INHALATION	Inhalation of dust causes irritation to respiratory tract. Toxic effects may follow and include methemoglobinemia, convulsions, and death.	
INGESTION	Toxic! A poison to blood and nerves. Causes gastrointestinal upset with severe diarrhea, sweating, weakness, headache, dizziness, cyanosis, spleen damage, kidney damage, cardiovascular effects, liver damage, and possibly convulsions and death.	
CHRONIC	Target organs include liver and kidneys.	
EMERGENCY AND FIRST AID PROCEDURES		
EYE CONTACT	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.	
SKIN CONTACT	Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.	
INHALATION	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.	

INGESTION	If swallowed, give large quantities of water to drink and get medical attention immediately. Never give anything by mouth to an unconscious person.		
SECTION 5 FIRE FIGHTING MEASURES			
FIRE	Flash point: 127C (261F) Autoignition temperature: 608C (1126F) As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.		
EXPLOSION	Not considered to be an explosion hazard.		
FIRE EXTINGUISHING MEDIA	Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire-exposed containers cool.		
SPECIAL INFORMATION	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Sealed containers may rupture when heated.		
SECTION 6 ACCIDENTAL RELEASE MEASURES			
Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.			
SECTION 7 HANDLING AND STORAGE			
Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Store separately from reactive or combustible materials, and out of direct sunlight. Isolate from incompatible substances. Control ignition sources. Employ grounding, bonding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating an explosion due to static discharge. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.			
SECTION 8 PERSONAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION	If the exposure limit is exceeded, a full facepiece respirator with dust/mist filter may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.		
SKIN PROTECTION	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.		
EYE PROTECTION	Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.		
VENTILATION	A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.		
SECTION 9 PHYSICAL DATA			
BOILING POINT (°C)	280' C	FREEZING POINT (°C)	No data.
SPECIFIC GRAVITY	1.27	SOLUBILITY IN WATER	Soluble
VAPOR PRESSURE (mm Hg)	1 @ 42°C	MELTING/SOFTENING POINT	110' C
pH, 10% SOLUTION	5.2	MOLECULAR WEIGHT	110
VAPOR DENSITY (AIR = 1)	3.8	SPECIFIC GRAVITY (WATER = 1.0)	1.27
		APPEARANCE AND ODOR	White powder or crystals
SECTION 10 REACTIVITY DATA			
STABILITY	Stable under normal conditions.		
INCOMPATIBILITY	Alkaline materials, oxidizing agents.		

HAZARDOUS DECOMPOSITION PRODUCTS	Carbon dioxide, carbon monoxide.							
HAZARDOUS POLYMERIZATION	Will not occur.							
CONDITIONS TO AVOID	Heat, flames, ignition sources and incompatibles.							
SECTION 11 TOXICOLOGICAL INFORMATION								
LD₅₀, ORAL, RAT	301 mg/kg							
CARCINOGEN	Not Known, IARC Category : 3							
SECTION 12 ECOLOGICAL INFORMATION								
AQUATIC TOXICITY	This material is expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.							
SECTION 13 DISPOSAL CONSIDERATION								
Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements								
SECTION 14 TRANSPORT INFORMATION								
DOMESTIC (LAND, D.O.T)	Proper Shipping Name: RESORCINOL Hazard Class: 6.1 UN/NA: UN2876 Packing Group: III							
INTERNATIONAL (WATER, I.M.O)	Proper Shipping Name: RESORCINOL Hazard Class: 6.1 UN/NA: UN2876 Packing Group: III							
SECTION 15 REGULATORY INFORMATION								
Chemical Inventory Status								
<u>Ingredient</u> Resorcinol	<u>TSCA</u> Yes	<u>EC</u> Yes	<u>Japan</u> Yes	<u>Australia</u> Yes	<u>Korea</u> Yes	<u>DSL</u> Yes	<u>NDSL</u> Yes	<u>Phil.</u> Yes
Federal, State & International Regulations								
<u>Ingredient</u> Resorcinol	- SARA 302 - RQ TPQ No No	--- SARA 313 --- List Chemical Catg. No No	CERCLA 5000	RCRA 261.33 U201	TSCA 8(d) No	TSCA 12(b) No	CDTA No	
Chemical Weapons Convention : No								
SARA 311/312 : Acute : Yes Chronic : Yes Fire : No Pressure : No								
SECTION 16 OTHER INFORMATION								
NFPA			HMIS					
			HEALTH			3		
			FLAMM.			1		
			REACT.			0		

This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. While this information and recommendations set forth are believed to be accurate as of the date hereof, ATUL LIMITED. makes no warranty with respect hereto and disclaims all liability from reliance thereon.