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Reviewed on 05/28/2024

Product identifier	
Trade name: <u>Resorcinol, Laboratory Grade</u> , (<u>Resorcinol</u>	<u>Crystal</u>
Article number: R3601	
CAS Number: 108-46-3	
EC number:	AQUA
203-585-2	SOLUTIONS
<i>Index number:</i> 604-010-00-1	
Details of the supplier of the safety data sheet	t
Manufacturer/Supplier:	
Aqua Solutions, Inc. 6913 Highway 225	
DEER PARK, TX 77536	
USA	
800-256-2586	
Information department: Technical Coordinator	
Sherman Nelson shermann@aquasolutions.or	g
Technical Coordinator	~
Sherman Nelson shermann@aquasolutions.or Emergency telephone number:	g
Chemtrec: 800-424-9300	
Canutec: 613-996-6666	
Hazard(s) identification	
Hazard(s) identification Classification of the substance or mixture	
Classification of the substance or mixture GHS08 Health hazard	ura 2 H371 May cause damaga to organs
Classification of the substance or mixture	ure 2 H371 May cause damage to organs.
Classification of the substance or mixture GHS08 Health hazard Specific Target Organ Toxicity - Single Expos	ure 2 H371 May cause damage to organs.
Classification of the substance or mixture GHS08 Health hazard	ure 2 H371 May cause damage to organs.
Classification of the substance or mixture GHS08 Health hazard Specific Target Organ Toxicity - Single Exposi	
Classification of the substance or mixture GHS08 Health hazard Specific Target Organ Toxicity - Single Expos	ure 2 H371 May cause damage to organs. H318 Causes serious eye damage.
Classification of the substance or mixture GHS08 Health hazard Specific Target Organ Toxicity - Single Exposi	
Classification of the substance or mixture GHS08 Health hazard Specific Target Organ Toxicity - Single Exposition GHS05 Corrosion Eye Damage 1 GHS07	H318 Causes serious eye damage.
Classification of the substance or mixture GHS08 Health hazard Specific Target Organ Toxicity - Single Expos GHS05 Corrosion Eye Damage 1 GHS07 Acute Toxicity - Oral 4	H318 Causes serious eye damage. H302 Harmful if swallowed.
Classification of the substance or mixture GHS08 Health hazard Specific Target Organ Toxicity - Single Exposition GHS05 Corrosion Eye Damage 1 GHS07	H318 Causes serious eye damage.

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de name: Resorcinol, Laboratory Grade, Crystal Resorcinol	
Hazard pictograms	(Contd. of page
GHS05 GHS07 GHS08	
Signal word Danger	
Hazard statements	
Harmful if swallowed.	
Causes skin irritation.	
Causes serious eye damage.	
May cause an allergic skin reaction.	
May cause damage to organs.	
Precautionary statements	
Wash thoroughly after handling.	
Do not eat, drink or smoke when using this product.	
Avoid release to the environment.	
Wear protective gloves/protective clothing/eye protection/face protection.	
If swallowed: Call a poison center/doctor if you feel unwell.	
If on skin: Wash with plenty of water.	
If in eyes: Rinse cautiously with water for several minutes. Remove contact lens	ses, if present and easy to c
Continue rinsing.	
Immediately call a poison center/doctor.	
Specific treatment (see on this label). Rinse mouth.	
If skin irritation occurs: Get medical advice/attention.	
Take off contaminated clothing.	
Collect spillage.	
Store locked up.	
Dispose of contents/container in accordance with local/regional/national/internation	nal regulations
Classification system:	nui reguiunons.
NFPA ratings (scale 0 - 4)	
Health = 3	
$\frac{1}{3} \int \frac{Fire = I}{Pagatinity = 0}$	
$\frac{3}{0} Reactivity = 0$	
HMIS-ratings (scale 0 - 4)	
HEALTH ¹³ Health = $*3$	
FIRE 1 Fire = 1	
$\frac{1}{\text{REACTIVITY}} \frac{1}{0} Reactivity = 0$	
Other hazards	
Results of PBT and vPvB assessment	
PBT: Not applicable.	
vPvB: Not applicable.	

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Trade name: Resorcinol, Laboratory Grade, Crystal Resorcinol

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3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- CAS: 108-46-3 Resorcinol, Laboratory Grade, Crystal
- Identification number(s)
- EC number: 203-585-2
- · Index number: 604-010-00-1

4 First-aid measures

- · Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

• After inhalation:

Supply fresh air and to be sure call for a doctor.

- In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Immediately call a doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 *Fire-fighting measures*

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- *Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.*
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- \cdot Methods and material for containment and cleaning up:

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

· Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- Protective Action Criteria for Chemicals
- **PAC-1:** 20 ppm
- PAC-2: 28 ppm

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Safety Data Sheet acc. to OSHA HCS

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· PAC-3: 170 ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling Thorough dedusting.
- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see section 7.

· Control parameters

• Components with limit values that require monitoring at the workplace:

CAS: 108-46-3 Resorcinol, Laboratory Grade, Crystal

REL Short-term value: 90 mg/m³, 20 ppm

Long-term value: 45 mg/m³, 10 ppm

TLV Short-term value: 20 ppm Long-term value: 10 ppm A4

· Additional information: The lists that were valid during the creation were used as basis.

• Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.
- Breathing equipment: Not required.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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• Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



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Tightly sealed goggles

· Body protection: Protective work clothing

Information on basic physical and cl	nemical properties	
General Information		
Appearance:		
Form:	Solid	
Color:	White	
· Odor:	Characteristic	
Odor threshold:	Not determined.	
pH-value:	20	
Change in condition		
Melting point/Melting range:	109-112 °C (228.2-233.6 °F)	
Boiling point/Boiling range:	178 °C (352.4 °F)	
Flash point:	127 °C (260.6 °F)	
Flammability (solid, gaseous):	Product is not flammable.	
Auto igniting:	605 °C (1,121 °F)	
Decomposition temperature:	Not determined.	
Ignition temperature:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapor pressure at 21 °C (69.8 °F):	1 hPa (0.8 mm Hg)	
Vapor pressure at 50 °C (122 °F):	$0.06 \ hPa \ (0 \ mm \ Hg)$	
Density at 20 °C (68 °F):	1.272 g/cm ³ (10.61484 lbs/gal)	
Relative density	Not determined.	
· Vapor density	Not applicable.	
• Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water at 20 °C (68 °F):	1.4 g/l	
Partition coefficient (n-octanol/water	·): Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	

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Trade name: Resorcinol, Laboratory Grade, Crystal Resorcinol

Kinematic:

Not applicable.

· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

Oral LD50 500 mg/kg (ATE)

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Strong irritant with the danger of severe eye injury.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

· Carcinogenic categories

- · IARC (International Agency for Research on Cancer) 3
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:
- Water hazard class 2 (Assessment by list): hazardous for water
- Do not allow product to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pHvalue harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.

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Trade name: Resorcinol, Laboratory Grade, Crystal Resorcinol

· vPvB: Not applicable.

• Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

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Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number	
DOT, IMDG, IATA	UN2876
UN proper shipping name	
DOT	Resorcinol
IMDG, IATA	RESORCINOL
Transport hazard class(es)	
DOT	
TOXIC	
6	
Class	6.1 Toxic substances
Label	6.1
Class	6.1 Toxic substances
Label	6.1
IATA	
Class	6.1 Toxic substances
Label	6.1
Packing group	
DOT, IMDG, IATA	III
, ,	

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Trade name: Resorcinol, Laboratory Grade, Crystal Resorcinol

	(Contd. of page
Marine pollutant:	No
	Symbol (fish and tree)
Special precautions for user	Warning: Toxic substances
Hazard identification number (Kemler code):	60
EMS Number:	F-A,S-A
Stowage Category	A
Transport in bulk according to Annex II of	
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 100 kg
~ .	On cargo aircraft only: 200 kg
Hazardous substance:	5000 lbs, 2270 kg
IMDG	
Limited quantities (LQ)	5 kg
Excepted quantities (\widetilde{EQ})	Code: El
· · · · · · · · · · · · · · · · · · ·	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g
UN "Model Regulation":	UN 2876 RESORCINOL, 6.1, III

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

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- Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): ACTIVE
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value) A4
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS). • Hazard pictograms



· Signal word Danger

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(Contd. of page 8) · Hazard statements Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause damage to organs. · Precautionary statements Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see on this label). Rinse mouth. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. Collect spillage. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environment protection department.

· Contact:

Date of Preparation / Last Revision: · Date of preparation / last revision Revision 1.2, 05/28/2024: Reviewed SDS for accuracy. MH/STN Creation date for SDS 11-10-2014. STN 05/28/2024 · Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Acute Toxicity - Oral 4: Acute toxicity - Category 4 Skin Irritation 2: Skin corrosion/irritation – Category 2 Eye Damage 1: Serious eye damage/eye irritation – Category 1

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Sensitization - Skin 1: Skin sensitisation – Category 1 Specific Target Organ Toxicity - Single Exposure 2: Specific target organ toxicity (single exposure) – Category 2 • * Data compared to the previous version altered.

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