



FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)  
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)  
FOR ALL SDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

**PRODUCT NAME: REGAL DY-CHLOR II**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Arch Chemicals, Inc.</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004	REVISION DATE:	05/26/2015
	SUPERCEDES:	05/11/2009
	MSDS Number:	000000023908
	SYNONYMS:	Sodium dichlor; sodium dichloroisocyanurate, dihydrate; Sodium dichloro-s-triazinetrione dihydrate
	CHEMICAL FAMILY:	Chloroisocyanurates
	DESCRIPTION / USE	swimming pool sanitizer
	FORMULA:	None established

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Acute toxicity (Oral) : Category 4  
Acute toxicity (Inhalation) : Category 3  
Skin irritation : Category 2  
Serious eye damage : Category 1  
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

### GHS Label element

Hazard pictograms :   

Signal word : Danger

Hazard statements : H302 Harmful if swallowed.



H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.

Precautionary statements

: **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear eye protection/ face protection.  
P280 Wear protective gloves.  
**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician.  
P305 + P351 + P338 + P310 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 or doctor/ physician.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
SODIUM DICHLORO-S-TRIAZINE TRIONEDIHYDRATE	51580-86-0	99



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## SECTION 4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Notes to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.

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## SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA):	Product is not known to be flammable, combustible, pyrophoric or explosive., NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1 Oxidizer
<u>Flammable Properties</u>	
Flash Point:	Not applicable
Autoignition Temperature:	Not applicable
Extinguishing Media:	Choose extinguishing media suitable for surrounding materials. Do not use dry extinguishers containing ammonium compounds.
Fire Fighting Instructions:	Use water to cool containers exposed to fire. On small fires, use water spray or fog. On large fires, use heavy deluge or fog streams. Flooding amounts of water may be required before extinguishment can be accomplished. Do not use dry extinguishers containing ammonium compounds. Response to this material requires the use of a full encapsulated suit and full-face (NIOSH approved) self-contained breathing apparatus (SCBA).
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Upper Flammable / Explosive Limit, % in air:	Not applicable
Lower Flammable / Explosive Limit, % in air:	Not applicable



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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Response to a large quantity spill (100 pounds or greater) or when dusting or decomposition gas exposure could occur requires the use of a positive pressure full face supplied air respirator or self contained breathing apparatus (SCBA), chemical resistant gloves, coveralls and boots. In case of fire, this personal protective equipment should be used in addition to normal fire fighter equipment. Compatible materials for response to this material are: neoprene. Protection concerns must also address the following: If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist.

### Spill Mitigation Procedures

Air Release:

Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of alcohol foam. Contain all solids for treatment or disposal.

Water Release:

This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Begin monitoring for available chlorine and pH immediately.

Land Release:

Do not contaminate spill material with any organic materials, ammonia, ammonium salts or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container. Avoid dust generation. Do not place spill materials back in their original containers.

Additional Spill Information :

Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

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## SECTION 7. HANDLING AND STORAGE

Handling:

Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing dust from this material.

Storage:

Store in a cool dry ventilated location, away from sources of ignition or other incompatible conditions and chemicals. Keep container(s) closed.

Incompatible Materials for Storage:

Refer to Section 10, "Incompatible Materials."



## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

### Protective Equipment for Routine Use of Product

Respiratory Protection : Wear a NIOSH approved respirator if levels above the exposure limits are possible.  
Respirator Type : A NIOSH approved full-face air purifying respirator equipped with combination chlorine/P100 cartridges. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.  
Skin Protection : Wear impervious gloves to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.  
Eye Protection: Use chemical goggles.  
Protective Clothing Type: Neoprene, Nitrile, Natural rubber (This includes: gloves, boots, apron, protective suit)  
General Protective Measures: An eye wash and safety shower should be provided in the immediate work area.

### **Components with workplace control parameters**

no data available

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form	crystalline powder
Color:	white
Odor:	Mild chlorine-like
Molecular Weight:	No data
pH :	5.5 - 7.0 1% solution
Boiling Point:	Not applicable
Melting point/freezing point	464 °F (240 °C)
Density:	No data
Vapor Pressure:	Not applicable
Vapor Density:	No data
Viscosity:	No data
Fat Solubility:	No data
Solubility in Water:	Soluble
Partition coefficient n-octanol/water:	No data
Evaporation Rate:	Not applicable
Oxidizing:	Product has oxidizing properties.
Volatiles, % by vol.:	Not applicable



VOC Content                      This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489). This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

HAP Content                      Not applicable

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## SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:      Stable under normal conditions. Not sensitive to mechanical shock. Not sensitive to static discharge. Product will not undergo hazardous polymerization. Considered to be an OSHA oxidizer per 29 CFR 1910.1200. Not an oxidizer according to the criteria established by the 49 CFR DOT regulations. NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1 Oxidizer

Conditions to Avoid:                      Sparks, open flame, other ignition sources, and elevated temperatures., Avoid high humidity., Contact with incompatible substances

Chemical Incompatibility:                This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive , flammable or combustible materials., (Incompatible materials for packaging: paper, cardboard)

Hazardous Decomposition Products:   Chlorine, Nitrogen trichloride, carbon monoxide

Decomposition Temperature:          No data

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

SODIUM DICHLORO-      LD50 = 735 mg/kg      Rat  
S-TRIAZINE  
TRIONEDIHYDRATE

### Component Animal Toxicology

#### Dermal LD50 value:

SODIUM DICHLORO-      LD50 > 2,000 mg/kg      Rabbit  
S-TRIAZINE  
TRIONEDIHYDRATE

### Component Animal Toxicology

#### Inhalation LC50 value:

SODIUM DICHLORO-      Inhalation LC50 1 h (aerosol dust), (Nose Only)      Approximately      2.16 mg/l  
S-TRIAZINE                      Rat

TRIONEDIHYDRATE                      Inhalation LC50 4 h (aerosol dust), (Nose Only)      Approximately      0.54 mg/l  
Rat



Product Animal Toxicity

Oral LD50 value: LD50 = 735 mg/kg Rat  
Dermal LD50 value: LD50 > 2,000 mg/kg Rabbit  
Inhalation LC50 value: Inhalation LC50 1 h (aerosol dust), (Nose Only) Approximately 2.16 mg/l Rat  
Inhalation LC50 4 h (aerosol dust), (Nose Only) Approximately 0.54 mg/l Rat

**Skin Irritation:** DRY MATERIAL CAUSES MODERATE SKIN IRRITATION., WET MATERIAL CAUSES SKIN BURNS.

**Eye Irritation:** Corrosive to eyes.

**Skin Sensitization:** Negative skin sensitizer, guinea pig - Buehler Method

**Acute Toxicity:** This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract. The dry material is irritating to the skin. However when wet, it will produce burns to the skin.

**Subchronic / Chronic Toxicity:** There are no known or reported effects from repeated exposure., Toxicological investigation indicates it does not produce significant effects from chronic exposure.

**Reproductive and Developmental Toxicity:** This chemical has been tested in laboratory animals and no evidence of teratogenicity or fetotoxicity was seen.

**Mutagenicity:** This product was determined to be non-mutagenic in the Ames assay.

**Carcinogenicity:** This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

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## SECTION 12. ECOLOGICAL INFORMATION

**Overview:** Highly toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: SODIUM DICHLORO-S-TRIAZINE TRIONEDIHYDRATE

Rainbow trout ( <i>Salmo gairdneri</i> ),	- (nominal, flow-through) 96 h LC50 = 0.22 mg/l
Bluegill	- (nominal, flow-through) 96 h LC50 = 0.28 mg/l
Water flea ( <i>Daphnia magna</i> ),	- (nominal, static). 48 h LC50= 0.196 mg/l
Mallard duck	- Oral LD50 = 3,300 mg/kg
Bobwhite quail	- Oral LD50 = 730 mg/kg
Mallard duck	- 8 d Dietary LC50 > 10,000 mg/kg
Bobwhite quail	- 8 d Dietary LC50 > 10,000 mg/kg

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## SECTION 13. DISPOSAL CONSIDERATIONS



**CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.**

Waste Disposal Summary : If this product becomes a waste, it will be a nonhazardous waste according to U.S. RCRA regulations. Dispose of in accordance with all Local, State, Federal, and Provincial Environmental Regulations.

Disposal Methods : As a nonhazardous waste, it should be disposed of in accordance with local, state and federal regulations.

Potential US EPA Waste Codes : Not applicable

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## **SECTION 14. TRANSPORT INFORMATION**

**DOT**

Not dangerous goods

**TDG**

Not dangerous goods

**IATA**

Not dangerous goods

**IMDG-CODE**

Not dangerous goods

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## **SECTION 15. REGULATORY INFORMATION**

### **EPCRA - Emergency Planning and Community Right-to-Know Act**

**SARA 302**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **Clean Air Act**





This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations**

**Massachusetts Right To Know**

sodium  
dichloroisocyanurate,  
dihydrate 51580-86-0

**Pennsylvania Right To Know**

sodium  
dichloroisocyanurate,  
dihydrate 51580-86-0

**New Jersey Right To Know**

sodium  
dichloroisocyanurate,  
dihydrate 51580-86-0

**California Prop 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

TSCA : This is an EPA registered pesticide.



**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

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**SECTION 16. OTHER INFORMATION**

SECTIONS REVISED: 3, 5, 10  
Major References : Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .