

AQUA-CHEM INC, WATER TECHNOLOGIES DIV -- CITRIC ACID GRANULAR CLEANING AGENT --
6810-01-359-5011

===== Product Identification =====

Product ID:CITRIC ACID GRANULAR CLEANING AGENT

MSDS Date:09/26/1988

FSC:6810

NIIN:01-359-5011

MSDS Number: BRRLX

=== Responsible Party ===

Company Name:AQUA-CHEM INC, WATER TECHNOLOGIES DIV

Address:210 W CAPITOL DR

Box:421

City:MILWAUKEE

State:WI

ZIP:53201

Country:US

Info Phone Num:414-259-0600, 414-962-0100

Emergency Phone Num:202-483-7616,800-424-9300(CHEMTREC)

CAGE:09647

=== Contractor Identification ===

Company Name:AQUA-CHEM INC, WATER TECHNOLOGIES DIV

Box:421

City:MILWAUKEE

State:WI

ZIP:53201

Country:US

Phone:202-483-7616,800-424-9300(CHEMTREC)

CAGE:09647

===== Composition/Information on Ingredients =====

Ingred Name:CITRIC ACID, ANHYDROUS

CAS:5949-29-1

Other REC Limits:NONE RECOMMENDED

OSHA PEL:5 MG/M3 RESP. DUST

ACGIH TLV:10 MG/M

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Hazards Identification
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LD50 LC50 Mixture:LD50 (ORAL RAT) IS UNKNOWN.
Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:EYES: IRRITATION. SKIN: IRRITATION.
INHALATION: DUST MAY CAUSE RESPIRATORY TRACT IRRITATION. ORAL: MAY
CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, OR DIARRHEA.
Effects of Overexposure:EYES: IRRITATION. SKIN: IRRITATION.
INHALATION
OF DUST MAY CAUSE RESPIRATORY TRACT IRRITATION. INGESTION:
GASTROINTESTINAL IRRITATION, NAUSEA, DIARRHEA.
Medical Cond Aggravated by Exposure:NONE KNOWN.

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First Aid Measures
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First Aid:EYES: FLUSH WITH LARGE AMOUNTS OF WATER. GET MEDICAL
ATTENTION IF SYMPTOMS PERSIST. SKIN: REMOVE CONTAMINATED CLOTHING.
WASH AREA WITH SOAP AND WATER. INHALATION: MOVE TO FRESH AIR.
INGESTION: DO NOT INDUCE VOMITING. GIVE TWO GLASSE
S OF WATER. GET
MEDICAL ATTENTION.

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Fire Fighting Measures
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Extinguishing Media:WATER, CARBON DIOXIDE, FOAM.
Fire Fighting Procedures:RESPIRATORY PROTECTION IS REQUIRED WHEN
FIGHTING FIRE.
Unusual Fire/Explosion Hazard:PRODUCT IS NOT FLAMMABLE BUT WILL
DECOMPOSE IN FIRE. DECOMPOSITION PRODUCTS MAY BE TOXIC.

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Accidental Release Measures
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Spill Release Procedures:SWEEP UP DRY SPILL. DO NOT GENERATE DU
ST.
COLLECT IN CONTAINER FOR DISPOSAL. CONTAIN WET SPILL. DILUTE
FURTHER WITH WATER. NEUTRALIZE WITH SUITABLE ALKALINE MATERIAL SUCH
AS LIME OR DILUTE CAUSTIC (20 % OR LESS). FLUSH TO SANITARY SEWER.
Neutralizing Agent:LIME OR DILUTE CAUSTIC (20% OR LESS).

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Handling and Storage
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Handling and Storage Precautions:STORE IN TIGHTLY CLOSED CONTAINERS
AWAY FROM WATER AND INCOMPATIBLE MATERIALS. AVOID FREEZING AND HIGH
TEMPERATURES.

Ot

her Precautions:AVOID EYE CONTACT AND PROLONGED SKIN EXPOSURE. DO NOT GENERATE OR BREATH DUST. DO NOT TASTE OR SWALLOW.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NONE NORMALLY REQUIRED. WHERE EXPOSURE TO PRODUCT DUST IS APPARENT,WEAR A NIOSH-APPROVED DUST/MIST RESPIRATOR. FOR EMERGENCIES, A SELF-CONTAINED BREATHING APPARATUS MAY BE NECESSARY.

Ventilation:NORMAL VENTILATION USUALLY ADEQUATE.

Protective Gloves:RUBBER GLOVES RECOMMENDED.

Eye Protection:FACE SHIELD OR SAFETY GOGGLES REQUIRED.

Other Protective Equipment:WEAR A SAFETY APRON.

Work Hygienic Practices:WASH AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

===== Physical/Chemical Properties =====

HCC:C2

Boiling Pt:B.P. Text:DECOMPOSES

Melt/Freeze Pt:=-152.8C, 307.F

Spec Gravity:1.542

pH:2

Solubility in Water:592 G/L @ 25C

Appearance and Odor:FINE, WHITE

TE GRANULAR CRYSTALS. ODORLESS.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS, ALKALINE CHEMICALS.

Stability Condition to Avoid:STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE.

Hazardous Decomposition Products:MAY FORM CARBON MONOXIDE AND CARBON DIOXIDE IN THE PRESENCE OF HEAT.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Disposal Considerations =====

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Waste Disposal Methods:SEWER, BURY OR INCINERATE IN APPROVED SITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

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