



P&WC

SAFETY DATA SHEET

CONTINUUM AEC3192 (CoolGard IN 2275)

Version : 1.4
Date of preparation : 21 August 2018
Previous date : 13 January 2018

1. Chemical product and company identification

Product name CONTINUUM AEC3192 (CoolGard IN 2275)

Synonyms Not available.

Recommended use and Limitations on use

Recommended use Corrosion inhibitor

Issue date Jan-26-2011

Revision date 21/08/2018

Supersedes date 13/01/2018

Company/undertaking identification

JV Process and Water Chemicals LLC

Address: Street V. Kadirov 10, Chirchik city,
Tashkent Region, Republic of Uzbekistan, 111727

Tel: +99871 209 10 40

Email address: info@pwch.uz

www.pwch.uz

2. Hazards identification

Emergency overview May be corrosive to metals. Causes severe skin burns and eye damage. May be harmful in contact with skin. May be harmful if swallowed. Causes serious eye damage.

Hazard categories

Physical hazards Corrosive to metals Category 1

Health hazards Acute toxicity, oral Category 5

Acute toxicity, dermal Category 5

Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Environmental hazards Not classified.

Label elements

Pictograms



Signal word Danger

Hazard statement

H290 May be corrosive to metals.
H303 May be harmful if swallowed.
H313 May be harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Precautionary statement

Prevention

P234 Avoid breathing dust/fume/gas/mist/vapours/spray.
P262 Keep only in original container.
P264 Do not get in eyes, on skin, or on clothing.
P264 Wash thoroughly after handling.



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P280	Wear protective gloves/protective clothing/eye protection/face protection.	
Response		
P301 + P330 + P331	Get immediate medical advice/attention.	
P353	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
P304 + P340	Rinse skin with water/shower.	
P305 + P351 + P338	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	
P342	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P351	If experiencing respiratory symptoms:	
P363	Rinse cautiously with water for several minutes.	
P390	Wash contaminated clothing before reuse.	
P332	Absorb spillage to prevent material damage.	
P341	If skin irritation occurs:	
	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.	
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P310	Immediately call a POISON CENTER/doctor/.	
Storage		
P404	Store in a closed container.	
P405	Store locked up.	
P406	Store in corrosive resistant/ container with a resistant inner liner.	
Disposal		
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Physical and chemical hazards	May be corrosive to metals.	
Health hazards	Causes skin burns. Causes serious eye damage. May be harmful in contact with skin. May be harmful if swallowed.	
Environmental hazards	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Supplemental information	None.	
3. Composition/information on ingredients		
Substance/mixture	Mixtures	
Chemical name	Concentration (%)	CAS Number
Phosphoric Acid	>= 60	7664-38-2
4. First aid measures		
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.	
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.	
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.	
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.	
Most important symptoms and health effects	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.	
Expected acute symptoms and delayed symptoms	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.	
Personal protection for first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.	
Notes to physician	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.	



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5. Fire-fighting measures

Extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards	During fire, gases hazardous to health may be formed.
Special fire fighting procedures	Move containers from fire area if you can do so without risk.
Protection of fire-fighters	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe the mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

Clean-up methods and materials and containment measures Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Recovery and neutralization Not available.

Prevention of secondary hazards Not available.

7. Handling and storage

Handling Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

Storage Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Exposure limits

China OELs. Occupational Exposure Limits for Hazardous Agents in the Workplace, Chemical Hazardous Agents (GBZ 2.1-2007)

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	PC-STEL	3 mg/m ³
	PC-TWA	1 mg/m ³

Biological limit values No biological exposure limits noted for the ingredient(s).

Monitoring methods Follow standard monitoring procedures.

Engineering measures Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.



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Personal protective equipment

Respiratory protection	If air-purifying respirator use is appropriate, use a respirator with HEPA cartridges. In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Eye protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin and body protection	Wear appropriate chemical resistant clothing.

Hygiene measures

Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Liquid
Physical state	Liquid.
Form	Not available.
Color	Colorless to light yellow
Odor	Mild
pH (concentrated product)	< 1 Neat
pH in aqueous solution	1.2 (5% Solution)
Melting point/freezing point	< -34 °C
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	15 mmHg
Vapor pressure temp.	21 °C
Vapor density	> 1
Relative density	1.58
Relative density temperature	21 °C
Density	Not available.
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	25
Pour point	< -32 °C
Specific gravity	1.579
Viscosity	44 mPa.s
Viscosity temperature	21 °C



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VOC (Weight %) 0 % ESTIMATED

10. Stability and reactivity

Reactivity	May be corrosive to metals.
Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Not available.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Metals.
Hazardous decomposition products	Oxides of carbon and phosphorus evolved in fire.

11. Toxicological information

Acute toxicity May be harmful if swallowed. May be harmful in contact with skin.

Product	Species	Test Results
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CONTINUUM AEC3192 (CoolGard IN 2275) (CAS Mixture)

Acute

Dermal

LD50	Rabbit	3650 mg/kg, (Calculated according to GHS additivity formula)
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Oral

LD50	Rat	400 mg/kg, (Calculated according to GHS additivity formula)
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Components	Species	Test Results
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Phosphoric Acid (CAS 7664-38-2)

Acute

Dermal

LD50	Rabbit	2740 mg/kg
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Oral

LD50	Rat	300 mg/kg
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* Estimates for product may be based on additional component data not shown.

Routes of exposure	Ingestion. Skin contact. Eye contact.
Symptoms	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitizer	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not available.
Toxic to reproduction	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity following single exposure	Not classified.
Specific target organ toxicity following repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard. Based on available data, the classification criteria are not met.
Chronic effects	Prolonged inhalation may be harmful.



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12. Ecological information

Ecotoxicological data

Product	Species	Test Results
CONTINUUM AEC3192 (CoolGard IN 2275) (CAS Mixture)		
5% Mortality	Ceriodaphnia	500 mg/L, Static Screen, 48 hour, (pH adjusted)
85% Mortality	Ceriodaphnia	2500 mg/L, Static Screen, 48 hour, (pH adjusted)
EC50	Scenedesmus (algae)	> 100 mg/l, 72 Hours
LC50	Fathead Minnow	4200 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
NOEL	Fathead Minnow	2100 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
Aquatic		
Crustacea		
LC50	Daphnia magna	3540 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
NOEL	Daphnia magna	2100 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Bioaccumulation	No information available.
Mobility in soil	No data available for this product.
Other hazardous effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
Environmental fate	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	This product, being inorganic, has no TOC, BOD.

13. Disposal considerations

Residual waste	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Local disposal regulations	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

CNDG

UN number	UN1805
UN proper shipping name	Phosphoric acid solution
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
International regulations	If detailed packaging information is needed, please contact your SUEZ representative or customer service

IATA

UN number	UN1805
UN proper shipping name	Phosphoric acid, solution



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Transport hazard class(es)

Class 8
Subsidiary risk -
Packing group III
Environmental hazards No.
ERG Code 154
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1805
UN proper shipping name PHOSPHORIC ACID SOLUTION
Transport hazard class(es)
Class 8
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant No.
EmS F-A, S-B
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

CNDG; IATA; IMDG



15. Regulatory information

Inventory of Existing Chemical Substances in China

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Applicable regulations

OELs. Occupational Exposure Limits for Hazardous Agents in the Workplace, Part 1, Chemical Hazardous Agents
 Law of the Peoples Republic of China on prevention of environmental pollution caused by solid waste
 Provisions on the Environmental Administration of New Chemical substances
 Rule of safety use the chemicals in workplace
 List of Dangerous Goods
 Classification and Labeling of Dangerous Chemical Substances Commonly Used
 Safety Administration Regulations of the Hazardous Chemicals
 National Catalogue of Hazardous Waste
 Dangerous Chemical Products This safety data sheet conforms to the following laws, regulations and standards:
 Regulations on the Control over Safety of Dangerous Chemicals
 Regulations on Labor Protection in Workplaces Where Toxic Products Are Used
 Measures for the Safe Use of Chemicals in Workplaces
 Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)
 General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)
 Packing Symbol of Dangerous Goods(GB190-2009)
 Packing - Pictorial Marking for Handling of Goods (GB/T191-2009)



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General Rule For Classification and Hazard Communication of Chemicals (GB 13690-2009) and Catalog of Hazardous Chemicals

Phosphoric Acid (CAS 7664-38-2)

Occupational exposure limits for hazardous agents in the workplace (GBZ 2.1-2007)

Phosphoric Acid (CAS 7664-38-2)

Classification and code of dangerous goods (GB 6944-2012)

Regulated.

List of Dangerous Goods (GB 12268-2012)

Regulated.

The Principle of Classification of Transport Packaging Groups of Dangerous Goods (GB/T15098-2008)

Regulated.

General Specifications for Transport Packages of Dangerous Goods (GB 12463-2009)

Regulated.

Regulations on Road Transport of Dangerous Goods

Regulated.

Regulations on Rail Road Transport of Dangerous Goods

Regulated.

UN Recommendations on the Transport of Dangerous Goods (UN RTDG)

Regulated.

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 140703

Category Code(s):

G5 Cooling and retort water treatment products

G7 Boiler, steam line treatment products – nonfood contact

16. Other information

References

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

List of abbreviations

CAS: Chemical Abstract Service Registration Number

TWA: Time Weighted Average

STEL: Short Term Exposure Limit

LD50: Lethal Dose, 50%

LC50: Lethal Concentration, 50%

EC50: Effect Concentration, 50%

NOEL: No Observed Effect Level

COD: Chemical Oxygen Demand

BOD: Biochemical Oxygen Demand

TOC: Total Organic Carbon

CEN: European Committee for Standardisation

NFPA: National Fire Protection Association

ACGIH: American Conference of Governmental Industrial Hygienists

Further information

Correction in Section: 1,14,16

Disclaimer

Information presented herein has been compiled from sources considered to be dependable. Suez Water Technologies does not make any warranty or representation (express or implied) with respect to the accuracy, completeness, or usefulness of the information contained in this guide. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Composition/information on ingredients: Composition comments

Other information: Further information

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