# SAFETY DATA SHEET

#### SECTION I

Identity

**PRODUCT IDENTIFICATION:** CGL SERIES: CCS, CCR, CP, CPR, CG, CGR, WP, MR, CGAW, CGA, WNSF, Pacarb, GAC: Activated Carbon

PRODUCT USE: Use in accordance with manufacturer recommendations

MANUFACTURER:	Cameron/Great Lakes, Inc. 2335 NW 29 <sup>th</sup> Ave.
	Portland, OR 97210
TELEPHONE:	(503)225-0501
EMERGENCIES:	(503) 225-0501

Date Prepared: 5/25/2015

SECTION II		Hazard(s) Identification	
Hazard Classification: GHS-US			
Eye Irritation	2B	H320	
<b>Respiratory Irritation</b>	3	H335	

Signal Word: Irritant

Hazard Statement: Contact may cause eye irritation: Dust may cause respiratory irritation.

**Hazard Pictogram:** 



#### **Precautionary statements:**

P261	Avoid Breathing: dust/fume/gas/mist/vapor/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protections/face protection
P304/P340	If inhaled/Remove to fresh air
P305/P351/P338	If in eyes/rinse cautiously with water/ remove contact lenses if easy/continue rinsing
P337/P313	If eye irritation persist: get medical attention
P403/P233	Store in well ventilated place. Keep container tightly closed
P405	Store locked up
P501	Dispose container to appropriate receptacle

Other Hazards: No additional information

Acute Toxicity: No data available

SECTION III	Composition/Information on Ingredients			
Chemical Name	CAS#	% ]	Impurities	
Carbon	7440-44-0	100	None	
SECTION IV First-Aid Measures				
Route(s) of Exposure	Symj	ptoms		First Aid
Inhalation	Dust may cau	se mild respir	-	ove to fresh air. Seek medical attention if

minutation	Dust may equipe mile respiratory	Remove to nesh an. Seek mealear attention n
	irritation	irritation persists
Skin	Dust may cause mild	Wash with soap & water; seek medical attention if
	irritation/reddening	irritation persists.
Eye	Dust may cause eye irritation and	Flush with lukewarm water for at least 15 minutes. If
	redness.	irritation persists seek medical attention.
Ingestion	May cause digestive track	Drink plenty of water and seek medical attention.
	irritation.	

SECTION V	Fire Fighting Measures
Suitable Extinguishing Media: Unsuitable Media: Unusual fire & explosion hazards: Special Firefighting procedures:	Flood with plenty of water, use media suitable for surrounding the fire. None known. Contact with strong oxidizers may cause rapid combustion. Exercise caution when responding to any chemical fire. Firefighters should wear full protective gear.

SECTION VI	Accidental Release Measures	
Personal Precautions:	Wear protective equipment, keep unnecessary personnel away.	
General precautions:	Avoid contact with skin and eyes.	
Environmental Precautions:	None	
Containment & Clean Up:	Sweep up and discard in protected refuse container.	
Other Information:	Not applicable	
SECTION VII	Handling and Storage	
Safe Handling:	Avoid prolonged contact with eyes and skin. Use in well ventilated areas.	
Safe Storage:	Store in a cool, dry and well ventilated area. Protect containers from physical damage. Keep away from oxidizers, heat and flame.	

SECTION VIII	Exposure Controls/Personal Protection		
Component	OSHA PEL	ACGIH-TLV	Other Limits
Activated Carbon	Not Available	Not Available	

Engineering Guidelines	Local exhaust and general ventilation to meet exposure standards. Wet activated carbon depletes oxygen from the air creating a severe hazard to workers in enclosed or confined spaces. Sampling and work procedures for low oxygen levels should be taken whenever workers entering carbon vessels, enclosed or confined spaces. If risk of overexposure exists, wear
	and approved respirator.
Personal Protective Equipment	Use NIOSH approved respirator if dust generated exceeds exposure limits.
	Gloves, safety glasses, work clothes as determined appropriate
General Hygiene	Keep away from food and beverages, remove contaminated clothing: wash
	hands before eating.

SECTION IX	Physical & Chemical Properties

Physical State	Solid	Boiling point	NA
Appearance	Granular/powder	Flash Point	NA
Color	Black	Evaporation Rate	NA
Odor	None	Flammability (solid/gas) C	No Data Available
Odor Threshold	None	UEL	NA
Vapor Pressure	0	LEL	NA
рН	NA	Vapor Density	Solid
<b>Relative Density</b>	28 – 33 lbs/cubic ft	Patrition Coefficient:	NA
Melting Point	NA	Auto ignition Temperature	No data available
Freezing Point	NA	<b>Decomposition Temperature</b>	NA
Solubility	None	Viscosity	NA

SECTION X	Stability & Reactivity
	a
Incompatibility:	Strong oxidizers such as ozone or liquid oxygen, and chlorine
Chemical Stability:	Stable
Conditions to Avoid:	None
Materials to Avoid:	Strong oxidizers such as ozone or liquid oxygen, and chlorine
Hazardous Decomposition Products:	Carbon Monoxide and carbon dioxide may be generated during combustion.

Acute Effects	
Oral LD50	Not Determined
Dermal LD 50	Not Determined
Inhalation	See Section IV
Ingestion	See Section IV
Eye Irritation	See Section IV
Skin Irritation	See Section IV
Sensitization	Not Determined
Signs and Symptoms of Exposure	Irritation and redness of eyes and skin. Dust may cause respiratory irritation

Chronic Effects:	
Carcinogenicity	Not Determined
Mutagenicity	Not Determined
Reproduction Effects	Not Determined
Developmental Factors	Not Determined

## SECTION XII

#### **Ecological Information**

Ecotoxicity	Not Determined
Persistence/Degradability	Not Determined
Bioaccumulation Potential	Not Determined
Mobility in Soil	Not Determined
Other Adverse Effects	Not Determined

## SECTION XIII

#### **Disposal Concerns**

Vacuum or shovel material in a closed container. Dispose of in accordance with all applicable local, state, federal and international regulations.

#### SECTION XIV

**Transport Information** 

UN Number: Not applicable UN Name: Not applicable

Ship in accordance with DOT/ADR/RID/ADNR/IMDP/ICAO/IATA

# SECTION XVRegulatory InformationSARA Title III 302Product not listedSARA Title III 313Product not listedTSCAProduct is listedCanadian – WHMISProduct is listedDSL #Product is Listed

## SECTION XVI

#### **Other Information**

The information and recommendations listed are believed to be true and accurate to the best of our knowledge as of the prepared date below. Cameron Great Lakes, Inc. makes no warranty with respect to same and disclaims all liability for reliance therein.

Date Prepared: May 25, 2015

# SAFETY DATA SHEET

#### SECTION I

Identity

PRODUCT IDENTIFICATION: CGL SERIES: CCS-CI CC-CI CP-CI Caustic impregnated activated carbon

PRODUCT USE: Use in accordance with manufacturer recommendations

MANUFACTURER:	Cameron/Great Lakes, Inc.
	2335 NW 29 <sup>th</sup> Ave.
	Portland, OR 97210
TELEPHONE:	(503)225-0501
EMERGENCIES:	(503) 225-0501

Date Prepared: 5/26/2015

SECTION II		Hazard(s) Identification
Hazard Classification:	GHS-US	

azard Classification: GHS-US		
Eye Irritation	2A	H319
Respiratory Irritation	3	H335
Skin Irritation	2	H315
Aquatic toxicity	4	H413

Signal Word: Irritant

**Hazard Statement**: Contact may cause eye, and skin irritation: Dust may cause respiratory irritation. May cause long term harmful effects to aquatic life

#### Hazard Pictogram:



#### **Precautionary statements:**

P261	Avoid Breathing: dust/fume/gas/mist/vapor/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protections/face protection
P304/P340	If inhaled/Remove to fresh air
P305/P351/P338	If in eyes/rinse cautiously with water/ remove contact lenses if easy/continue rinsing
P337/P313	If eye irritation persist: get medical attention
P403/P233	Store in well ventilated place. Keep container tightly closed
P405	Store locked up
P501	Dispose container to appropriate receptacle

Other Hazards: The Potassium Hydroxide component of this product is classified as hazardous by OSHA.

## Acute Toxicity: No data available

SECTION III	<b>Composition/Information on Ingredients</b>		
Chemical Name	(CAS#)	%, wt.	Impurities
Carbon	7440-44-0	<u>&gt;85</u>	None
Potassium Hydroxide	1310-58-3	<u>≤</u> 15	None

## SECTION IV

First-Aid Measures

Route(s) of Exposure	Symptoms	First Aid	
Inhalation	Dust may cause mild respiratory	Remove to fresh air. Seek medical attention if	
	irritation	irritation persists	
Skin	Dust may cause mild	Wash with soap & water; seek medical attention if	
	irritation/reddening	irritation persists.	
Eye	Dust may cause eye irritation	Flush with lukewarm water for at least 15 minutes.	
	and redness.	If irritation persists seek medical attention.	
Ingestion	May cause digestive track	Drink plenty of water and seek medical attention.	
	irritation.		

SECTION V	Fire Fighting Measures
Suitable Extinguishing Media:	Flood with plenty of water, use media suitable for surrounding the fire.
Unsuitable Media:	None known.
Unusual fire & explosion hazards:	Contact with strong oxidizers may cause rapid combustion.
Special Firefighting procedures:	Exercise caution when responding to any chemical fire. Firefighters should wear full protective gear.
SECTION VI	Accidental Release Measures
Personal Precautions:	Wear protective equipment, keep unnecessary personnel away.
General precautions:	Avoid contact with skin and eyes.
Environmental Precautions:	The impregnate on this product is water soluble – activated carbon is not. Dike all entrances to sewers and drains to avoid introduction into waterways.
Containment & Clean Up:	Dike all entrances to sewers and drains. Sweep up and discard in
Ĩ	protected refuse container.
Other Information:	Not applicable
SECTION VII	Handling and Storage
Safe Handling:	Avoid prolonged contact with eyes and skin. Use in well ventilated areas. Wash after handling.
Safe Storage:	Store in a cool, dry and well ventilated area. Protect containers from physical damage. Keep away from oxidizers, heat and flame.

SECTION VIII

## **Exposure Controls/Personal Protection**

Component	OSHA PEL	ACGIH-TLV	Other Limits
Activated Carbon	Not Available	Not Available	
Alkali Potassium Salts	$2mg/M^3$ (Ceiling)	2mg/M3 (Ceiling)	

Engineering Guidelines	Local exhaust and general ventilation to meet exposure standards. Wet activated carbon depletes oxygen from the air creating a severe hazard to workers in enclosed or confined spaces. Sampling and work procedures for low oxygen levels should be taken whenever workers entering carbon vessels, enclosed or confined spaces. If risk of overexposure exists, wear and approved respirator.
Personal Protective Equipment	Use NIOSH approved respirator if dust generated exceeds exposure limits. Gloves, safety glasses, work clothes as determined appropriate
General Hygiene	Keep away from food and beverages, remove contaminated clothing: wash hands before eating.

## Physical & Chemical Properties

Physical State	Solid	Boiling point	NA
Appearance	Granular/powder	Flash Point	NA
Color	Black	Evaporation Rate	NA
Odor	None	Flammability (solid/gas) C	No Data Available
Odor Threshold	None	UEL	NA
Vapor Pressure	0	LEL	NA
pH	NA	Vapor Density	Solid
Relative Density	$32 - 35 \text{ lbs./ft}^3$	Patrition Coefficient:	NA
Melting Point	NA	Auto ignition Temperature	No data available
Freezing Point	NA	Decomposition Temperature	NA
Solubility	Impregnate is	Viscosity	NA
-	soluble	-	

## SECTION X

SECTION IX

## Stability & Reactivity

Incompatibility:	Strong oxidizers such as ozone or liquid oxygen, and chlorine
Chemical Stability:	Stable
Conditions to Avoid:	None
Materials to Avoid:	Alkali metals, strong oxidizers such as ozone or liquid oxygen, and chlorine.
Hazardous Decomposition Products:	Carbon Monoxide and carbon dioxide may be generated during combustion. Thermal oxidation can produce toxic fumes of potassium oxide.

SECTION XI	Toxicological Information		
Acute Effects			
Oral LD50	Not Determined on finished product		
	Potassium Hydroxide: LD <sub>50</sub> =273 mg/kg (rat)		
Dermal LD 50	Not Determined		
Inhalation	See Section IV		
Ingestion	See Section IV		
Eye Irritation	See Section IV		
Skin Irritation	See Section IV		
Sensitization	Not Determined		

Signs and Symptoms of Exposure	Irritation and redness of eyes and skin. Dust may cause
	respiratory irritation

Chronic Effects:	
Carcinogenicity	Not Determined
Mutagenicity	Not Determined
Reproduction Effects	Not Determined
Developmental Factors	Not Determined

#### SECTION XII Ecological Information

Ecotoxicity	Not Determined on finished product
	Potassium Hydroxide: Mosquito Fish LC <sub>50</sub> =80.0 mg/l.
Persistence/Degradability	Not Determined
Bioaccumulation Potential	Not Determined
Mobility in Soil	Not Determined
Other Adverse Effects	Not Determined on finished product. If product gets wet
	potassium hydroxide may leach out.

## SECTION XIII Disposal Concerns

Vacuum or shovel material in a closed container. Dispose of in accordance with all applicable local, state, federal and international regulations.

#### SECTION XIV

#### **Transport Information**

UN Number: Not applicable UN Name: Not applicable

Ship in accordance with DOT/ADR/RID/ADNR/IMDP/ICAO/IATA

## SECTION XV

## **Regulatory Information**

SARA Title III 302 SARA Title III 313 TSCA Canadian – WHMIS DSL # Products not listed Products not listed Products are listed Products are listed Products are listed

## SECTION XVI

## **Other Information**

The information and recommendations listed are believed to be true and accurate to the best of our knowledge as of the prepared date below. Cameron Great Lakes, Inc. makes no warranty with respect to same and disclaims all liability for reliance therein.

Date Prepared: May 26, 2015

# SAFETY DATA SHEET

## SECTION I

Identity

**PRODUCT IDENTIFICATION:** CGL SERIES: C/ZK6, C/ZK6 HC, KOR48, Potassium Permanganate Impregnated Zeolite/activated carbon blend

PRODUCT USE: Use in accordance with manufacturer recommendations

MANUFACTURER:	Cameron/Great Lakes, Inc. 2335 NW 29 <sup>th</sup> Ave.
	Portland, OR 97210
TELEPHONE:	(503)225-0501
EMERGENCIES:	(503) 225-0501

Date Prepared: 5/26/2015

SECTION II	Hazard(s) Identification
Hazard Classification:	CHS-US

nazaru Classification: Gh5-U5		
Eye Irritation	2B	H320
Respiratory Irritation	3	H335
Oxidizer	2	H272
Signal Word: Irritant, Oxidizer		

Hazard Statement: Contact may cause eye irritation: Dust may cause respiratory irritation. May intensify fire.

Hazard Pictogram:



#### **Precautionary statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces/ - No Smoking
P220	Keep/Store away from clothing //combustible materials
P221	Take any precautions to avoid mixing with combustibles/
P261	Avoid Breathing: dust/fume/gas/mist/vapor/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protections/face protection
P304/P340	If inhaled/Remove to fresh air
P312	Call a poison center or doctor/physician if you feel unwell
P305/P351/P338	If in eyes/rinse cautiously with water/ remove contact lenses if easy/continue rinsing
P337/P313	If eye irritation persist: get medical attention
P403/P233	Store in well ventilated place. Keep container tightly closed
P405	Store locked up
P501	Dispose container to appropriate receptacle

Other Hazards: Toxic to aquatic life.



Acute Toxicity: No data available

SECTION III	Composition/Information on Ingredients		
Chemical Name	CAS#	%	Impurities
Activated Carbon	7440-44-0	<u>&lt;</u> 50	None
Zeolite	12173-10-3	<u>&gt;</u> 78	None
Water	7732-18-5	<u>&lt;</u> 14	None
Potassium Permanganate	7722-64-7	<u>&lt;</u> 8	None

## SECTION IV

## **First-Aid Measures**

Route(s) of Exposure	Symptoms	First Aid
Inhalation	Dust may cause mild respiratory	Remove to fresh air. Seek medical attention if
	irritation	irritation persists
Skin	Dust may cause mild	Wash with soap & water; seek medical attention if
	irritation/reddening/ skin	irritation persists.
	discoloration	
Eye	May cause eye irritation and	Flush with lukewarm water for at least 15 minutes.
	redness.	If irritation persists seek medical attention.
Ingestion	May cause digestive track	Drink plenty of water and seek medical attention.
	irritation. May be harmful if	
	swallowed.	

SECTION V	Fire Fighting Measures
Suitable Extinguishing Media:	Use media suitable for surrounding the fire.
Unsuitable Media:	None known.
Unusual fire & explosion hazards:	May intensify fire; oxidizer.
Special Firefighting procedures:	Exercise caution when responding to any chemical fire. Firefighters should wear full protective gear.
SECTION VI	Accidental Release Measures
SECTION VI Personal Precautions:	
	Accidental Release Measures Wear protective equipment, keep unnecessary personnel away. Avoid contact with skin and eyes.

Containment & Clean Up:	If possible stop flow of product. Sweep up and discard in protected refuse container.
Other Information:	Not applicable

SECTION VII	Handling and Storage	
Safe Handling:	Avoid prolonged contact with eyes and skin. Use in well ventilated	
	areas.	
Safe Storage:	Store in a cool, dry and well ventilated area. Protect containers from physical damage. Keep away from heat and flame.	
	physical damage. Reep away nonn heat and hance.	

SECTION VIII Exposure Controls/Personal Protection
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Component	OSHA PEL	ACGIH-TLV	Other Limits
Zeolite	Not Available	Not Available	
Potassium Permanganate	Not Available	5 mg/m <sup>3</sup> Ceiling	
Activated Carbon	Not Available	Not available	

Engineering Guidelines	Local exhaust and general ventilation to meet exposure standards. Wet activated carbon depletes oxygen from the air creating a severe hazard to workers in enclosed or confined spaces. Sampling and work procedures for low oxygen levels should be taken whenever workers entering carbon vessels, enclosed or confined spaces. If risk of overexposure exists, wear and approved respirator
Personal Protective Equipment	Use NIOSH approved respirator if dust generated exceeds exposure limits. Impervious gloves, safety glasses, work clothes as determined appropriate
General Hygiene	Keep away from food and beverages, remove contaminated clothing: wash hands before eating.

SECTION IX	Physical & Chemical Properties	
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Physical State	Solid	Boiling point	NA
Appearance	Granular	Flash Point	NA
Color	Purple and black	Evaporation Rate	NA
Odor	None	Flammability (solid/gas) C	No Data Available
Odor Threshold	None	UEL	NA
Vapor Pressure	No data	LEL	NA
pH	NA	Vapor Density	Solid
Relative Density	59-61 lbs/cubic ft	Patrition Coefficient:	NA
Melting Point	NA	Auto ignition Temperature	No data available
Freezing Point	NA	<b>Decomposition Temperature</b>	NA
Solubility	No Data	Viscosity	NA

## SECTION X

## Stability & Reactivity

Incompatibility: Chemical Stability: Conditions to Avoid: Materials to Avoid: None Stable under normal conditions None Potassium Permanganate – contact with hydrochloric acid may liberate chlorine gas.

## SECTION XI

## **Toxicological Information**

Acute Effects	
Oral LD50	Zeolite: No data available
	Potassium Permanganate: $LD_{50} = 750 \text{ mg/kg}$
Dermal LD 50	No data available
Inhalation	See Section IV
Ingestion	See Section IV
Eye Irritation	See Section IV
Skin Irritation	See Section IV
Sensitization	Not Determined
Signs and Symptoms of Exposure	Irritation and redness of eyes and skin. Dust may cause
	respiratory irritation
Chronic Effects:	
Carcinogenicity	Not Determined

Carcinogenicity	Not Determined
Mutagenicity	Not Determined
Reproduction Effects	Not Determined
Developmental Factors	Not Determined

## SECTION XII Ecological Information

Ecotoxicity	Potassium Permanganate: $LC_{50} = 1.8 \text{ mg/l rainbow trout } 96 \text{ hour}$ $LC_{50} = 2.3 \text{ mg/l bluegill sunfish } 96 \text{ hour}$
Persistence/Degradability	Not Determined
Bioaccumulation Potential	Potassium permanganate is low
Mobility in Soil	Not Determined
Other Adverse Effects	Not Determined

## SECTION XIII Disposal Concerns

Vacuum or shovel material in a closed container. Dispose of in accordance with all applicable local, state, federal and international regulations.

## **SECTION XIV**

## **Transport Information**

UN Number: Not applicable UN Name: Not applicable

Ship in accordance with DOT/ADR/RID/ADNR/IMDP/ICAO/IATA

## SECTION XV

#### **Regulatory Information**

SARA Title III 302	Product not listed
SARA Title III 313	Manganese portion of potassium permanganate is listed
TSCA	Potassium permanganate is listed
	Activated Carbon is listed
Canadian – WHMIS	Potassium Permanganate is listed
	Activated carbon is listed

DSL #

MA RTK\* – substance list: PA RTK hazardous substance list: Potassium Permanganate is listed \*RTK - Right to Know

Potassium Permanganate is listed Activated carbon is listed Potassium Permanganate is listed

## SECTION XVI

## **Other Information**

The information and recommendations listed are believed to be true and accurate to the best of our knowledge as of the prepared date below. Cameron Great Lakes, Inc. makes no warranty with respect to same and disclaims all liability for reliance therein.

Date Prepared: May 26, 2015

# SAFETY DATA SHEET

#### SECTION I

Identity

**PRODUCT IDENTIFICATION:** CGL SERIES: CCS-PA CC-PA Phosphoric acid impregnated activated carbon

PRODUCT USE: Use in accordance with manufacturer recommendations

MANUFACTURER:	Cameron/Great Lakes, Inc. 2335 NW 29 <sup>th</sup> Ave.
	Portland, OR 97210
TELEPHONE:	(503)225-0501
EMERGENCIES:	(503) 225-0501
EMEROENCIES.	(505) 225-0501

Date Prepared: 5/26/2015

#### SECTION II

Hazard(s) Identification

#### Hazard Classification: GHS-US

Eye Irritation	2A	H319
<b>Respiratory Irritation</b>	3	H335
Skin Irritation	2	H315
Aquatic toxicity	4	H413

#### Signal Word: Irritant

**Hazard Statement**: Contact may cause eye, and skin irritation: Dust may cause respiratory irritation. May cause long term harmful effects to aquatic life

#### Hazard Pictogram:



#### **Precautionary statements:**

P261	Avoid Breathing: dust/fume/gas/mist/vapor/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protections/face protection
P304/P340	If inhaled/Remove to fresh air
P305/P351/P338	If in eyes/rinse cautiously with water/ remove contact lenses if easy/continue rinsing
P337/P313	If eye irritation persist: get medical attention
P403/P233	Store in well ventilated place. Keep container tightly closed
P405	Store locked up
P501	Dispose container to appropriate receptacle

Other Hazards: The phosphoric acid component of this product is classified as hazardous by OSHA.

Acute Toxicity: No data available

SECTION III	Com	position/Inform	nation on Ingredien
Chemical Name	(CAS#)	%, wt.	Impurities
Carbon	7440-44-0	<u>&gt;85</u>	None
Phosphoric Acid	7664-38-2	<u>&lt;</u> 15	None

SECTION IV	First-Aid Measures
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Route(s) of Exposure	Symptoms	First Aid
Inhalation	Dust may cause mild respiratory	Remove to fresh air. Seek medical attention if
	irritation	irritation persists
Skin	Dust may cause mild	Wash with soap & water; seek medical attention if
	irritation/reddening	irritation persists.
Eye	Dust may cause eye irritation	Flush with lukewarm water for at least 15 minutes.
	and redness.	If irritation persists seek medical attention.
Ingestion	May cause digestive track	Drink plenty of water and seek medical attention.
	irritation.	

SECTION V	Fire Fighting Measures	
Suitable Extinguishing Media:	Flood with plenty of water, use media suitable for surrounding the fire.	
Unsuitable Media:	None known.	
Unusual fire & explosion hazards: Special Firefighting procedures:	Contact with strong oxidizers may cause rapid combustion. Exercise caution when responding to any chemical fire. Firefighters should wear full protective gear.	
SECTION VI	Accidental Release Measures	
Personal Precautions:	Wear protective equipment, keep unnecessary personnel away.	
General precautions:	Avoid contact with skin and eyes.	
Environmental Precautions:	The impregnate on this product is water soluble – activated carbon is not. Dike all entrances to sewers and drains to avoid introduction into waterways.	
Containment & Clean Up:	Dike all entrances to sewers and drains. Sweep up and discard in protected refuse container.	
Other Information:	Not applicable	
SECTION VII	Handling and Storage	
Safe Handling:	Avoid prolonged contact with eyes and skin. Use in well ventilated areas. Wash after handling.	
Safe Storage:	Store in a cool, dry and well ventilated area. Protect containers from physical damage. Keep away from oxidizers, heat and flame.	

## SECTION VIII

## **Exposure Controls/Personal Protection**

Component	OSHA PEL	ACGIH-TLV	Other Limits
Activated Carbon	Not Available	Not Available	
Phosphoric Acid	$1 \text{mg/M}^3$	$1 \text{mg/M}^3$	

Engineering Guidelines	Local exhaust and general ventilation to meet exposure standards. Wet activated carbon depletes oxygen from the air creating a severe hazard to workers in enclosed or confined spaces. Sampling and work procedures for low oxygen levels should be taken whenever workers entering carbon vessels, enclosed or confined spaces. If risk of overexposure exists, wear and approved respirator.	
Personal Protective Equipment	Use NIOSH approved respirator if dust generated exceeds exposure limits. Gloves, safety glasses, work clothes as determined appropriate	
General Hygiene	Keep away from food and beverages, remove contaminated clothing: wash hands before eating.	

#### Physical & Chemical Properties

Physical State	Solid	Boiling point	NA
Appearance	Granular/powder	Flash Point	NA
Color	Black	Evaporation Rate	NA
Odor	None	Flammability (solid/gas) C	No Data Available
Odor Threshold	None	UEL	NA
Vapor Pressure	0	LEL	NA
pH	NA	Vapor Density	Solid
<b>Relative Density</b>	$32 - 35 \text{ lbs./ft}^3$	<b>Patrition Coefficient:</b>	NA
Melting Point	NA	Auto ignition Temperature	No data available
Freezing Point	NA	<b>Decomposition Temperature</b>	NA
Solubility	Impregnate is soluble	Viscosity	NA

## SECTION X

SECTION IX

#### Stability & Reactivity

Incompatibility:	Strong oxidizers such as ozone or liquid oxygen, and chlorine
Chemical Stability:	Stable
Conditions to Avoid:	None
Materials to Avoid:	Alkali metals, strong oxidizers such as ozone or liquid oxygen, and chlorine.
Hazardous Decomposition Products:	Carbon Monoxide and carbon dioxide may be generated during
nazardous Decomposition Products.	combustion. Thermal oxidation can produce toxic fumes of potassium oxide.

SECTION XI	Toxicological Information	
Acute Effects		
Oral LD50	Phosphoric acid: $LD_{50} = 1530 \text{ mg/kg}$ (rat)	
Dermal LD 50	Phosphoric acid: LD50 = 2740 mg/kg (rabbit)	
Inhalation	See Section IV	
Ingestion	See Section IV	
Eye Irritation	See Section IV	
Skin Irritation	See Section IV	
Sensitization	Not Determined	

Signs and Symptoms of Exposure	Irritation and redness of eyes and skin. Dust may cause
	respiratory irritation

Chronic Effects:	
Carcinogenicity	Not Determined
Mutagenicity	Not Determined
Reproduction Effects	Not Determined
Developmental Factors	Not Determined

## SECTION XII Ecological Information

Ecotoxicity	Not Determined on finished product	
	Phosphoric Acid: Mosquito Fish LC <sub>50</sub> =138.0 mg/l (96hr)	
Persistence/Degradability	Not Determined	
Bioaccumulation Potential	Not Determined	
Mobility in Soil	Not Determined	
Other Adverse Effects	Not Determined on finished product. If product gets wet	
	phosphoric acid may leach out.	

## SECTION XIII Disposal Concerns

Vacuum or shovel material in a closed container. Dispose of in accordance with all applicable local, state, federal and international regulations.

#### SECTION XIV

#### **Transport Information**

UN Number: Not applicable UN Name: Not applicable

Ship in accordance with DOT/ADR/RID/ADNR/IMDP/ICAO/IATA

## SECTION XV

#### **Regulatory Information**

SARA Title III 302	Not listed
SARA Title III 313	Not listed
TSCA	Products are listed
Canadian – WHMIS	Products are listed
DSL #	Products are listed
US State	
NJ – RTK	Phosphoric acid – listed
MA-RTK	Phosphoric acid – listed
PA –RTK	Phosphoric acid – listed
RI – RTK	Phosphoric acid - listed

## SECTION XVI

## **Other Information**

The information and recommendations listed are believed to be true and accurate to the best of our knowledge as of the prepared date below. Cameron Great Lakes, Inc. makes no warranty with respect to same and disclaims all liability for reliance therein.

Date Prepared: May 26, 2015

# SAFETY DATA SHEET

## SECTION I

Identity

PRODUCT IDENTIFICATION: CGL SERIES: ZK6, ZK6 HC, Potassium Permanganate Impregnated Zeolite

PRODUCT USE: Use in accordance with manufacturer recommendations

MANUFACTURER:	Cameron/Great Lakes, Inc.	
	2335 NW 29 <sup>th</sup> Ave.	
	Portland, OR 97210	
TELEPHONE:	(503)225-0501	
EMERGENCIES:	(503) 225-0501	

Date Prepared: 5/26/2015

SECTION II	Hazard(s) Identification		
Hazard Classification: GHS-US Eye Irritation	2B	H320	
Respiratory Irritation	20	H320 H335	
	3		
Oxidizer	2	H272	

Signal Word: Irritant, Oxidizer

Hazard Statement: Contact may cause eye irritation: Dust may cause respiratory irritation. May intensify fire.

Hazard Pictogram:



#### **Precautionary statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces/ - No Smoking	
P220	Keep/Store away from clothing //combustible materials	
P221	Take any precautions to avoid mixing with combustibles/	
P261	Avoid Breathing: dust/fume/gas/mist/vapor/spray.	
P264	Wash thoroughly after handling.	
P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves/protective clothing/eye protections/face protection	
P304/P340	If inhaled/Remove to fresh air	
P312	Call a poison center or doctor/physician if you feel unwell	
P305/P351/P338	If in eyes/rinse cautiously with water/ remove contact lenses if easy/continue rinsing	
P337/P313	If eye irritation persist: get medical attention	
P403/P233	Store in well ventilated place. Keep container tightly closed	
P405	Store locked up	
P501	Dispose container to appropriate receptacle	

Other Hazards: Toxic to aquatic life.



Acute Toxicity: No data available

SECTION III	ECTION III Composition/Information on Ingredients		
Chemical Name	CAS#	%	Impurities
Zeolite	12173-10-3	<u>&gt;</u> 78	None
Water	7732-18-5	<u>&lt;</u> 14	None
Potassium Permanganate	7722-64-7	<u>&lt;</u> 8	None

## SECTION IV

First-Aid Measures

Route(s) of Exposure	Symptoms	First Aid
Inhalation	Dust may cause mild respiratory	Remove to fresh air. Seek medical attention if
	irritation	irritation persists
Skin	Dust may cause mild	Wash with soap & water; seek medical attention if
	irritation/reddening/ skin	irritation persists.
	discoloration	
Eye	May cause eye irritation and	Flush with lukewarm water for at least 15 minutes.
	redness.	If irritation persists seek medical attention.
Ingestion	May cause digestive track	Drink plenty of water and seek medical attention.
	irritation. May be harmful if	
	swallowed.	

Fire Fighting Measures
Use media suitable for surrounding the fire.
None known.
May intensify fire; oxidizer.
Exercise caution when responding to any chemical fire. Firefighters should wear full protective gear.

SECTION VI	Accidental Release Measures
Daman al Dua aan Ganar	Waar meteoting and have the second se
Personal Precautions:	Wear protective equipment, keep unnecessary personnel away.
General precautions:	Avoid contact with skin and eyes.
<b>Environmental Precautions:</b>	Potassium Permanganate: Do not allow to enter drains, sewers or waterways.
Containment & Clean Up:	If possible stop flow of product. Sweep up and discard in protected refuse container.
Other Information:	Not applicable

SECTION VII	Handling and Storage
Safe Handling:	Avoid prolonged contact with eyes and skin. Use in well ventilated
	areas.
Safe Storage:	Store in a cool, dry and well ventilated area. Protect containers from physical damage. Keep away from heat and flame.

## SECTION VIII Exposure Controls/Personal Protection

Component	OSHA PEL	ACGIH-TLV	Other Limits
Zeolite	Not Available	Not Available	
Potassium Permanganate	Not Available	5 mg/m <sup>3</sup> Ceiling	

Engineering Guidelines	Local exhaust and general ventilation to meet exposure standards.
Personal Protective Equipment	Use NIOSH approved respirator if dust generated exceeds exposure limits.
	Impervious gloves, safety glasses, work clothes as determined appropriate
General Hygiene	Keep away from food and beverages, remove contaminated clothing: wash
	hands before eating.

SECTION IX		<b>Physical &amp; Chemical Properties</b>	Physical & Chemical Properties	
Physical State	Solid	Boiling point	NA	
Appearance	Granular	Flash Point	NA	
Color	Purple	<b>Evaporation Rate</b>	NA	
Odor	None	Flammability (solid/gas) C	No Data Available	
Odor Threshold	None	UEL	NA	
Vapor Pressure	No data	LEL	NA	
рН	NA	Vapor Density	Solid	

рН	NA	Vapor Density	Solid
<b>Relative Density</b>	59-61 lbs/cubic ft	<b>Patrition Coefficient:</b>	NA
Melting Point	NA	Auto ignition Temperature	No data available
Freezing Point	NA	<b>Decomposition Temperature</b>	NA
Solubility	No Data	Viscosity	NA

SECTION X	Stability & Reactivity
Incompatibility:	None
Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	None
Materials to Avoid:	Potassium Permanganate – contact with hydrochloric acid may liberate chlorine gas.
Hazardous Decomposition Products:	By heating and fire, corrosive vapors may be formed.

# SECTION XI

# **Toxicological Information**

Acute Effects	
Oral LD50	Zeolite: No data available
	Potassium Permanganate: $LD_{50} = 750 \text{ mg/kg}$

Dermal LD 50	No data available
Inhalation	See Section IV
Ingestion	See Section IV
Eye Irritation	See Section IV
Skin Irritation	See Section IV
Sensitization	Not Determined
Signs and Symptoms of Exposure	Irritation and redness of eyes and skin. Dust may cause
	respiratory irritation

Chronic Effects:	
Carcinogenicity	Not Determined
Mutagenicity	Not Determined
Reproduction Effects	Not Determined
Developmental Factors	Not Determined

## SECTION XII Ecological Information

Ecotoxicity	Potassium Permanganate: $LC_{50} = 1.8 \text{ mg/l rainbow trout } 96 \text{ hour}$ $LC_{50} = 2.3 \text{ mg/l bluegill sunfish } 96 \text{ hour}$
Persistence/Degradability	Not Determined
Bioaccumulation Potential	Potassium permanganate is low
Mobility in Soil	Not Determined
Other Adverse Effects	Not Determined

## SECTION XIII

## **Disposal Concerns**

Vacuum or shovel material in a closed container. Dispose of in accordance with all applicable local, state, federal and international regulations.

#### SECTION XIV

#### **Transport Information**

UN Number: Not applicable UN Name: Not applicable

Ship in accordance with DOT/ADR/RID/ADNR/IMDP/ICAO/IATA

## SECTION XV

## **Regulatory Information**

SARA Title III 302	Product not listed
SARA Title III 313	Manganese portion of potassium permanganate is listed
TSCA	Potassium permanganate is listed
Canadian – WHMIS	Potassium Permanganate is listed
DSL #	Potassium Permanganate is listed
MA RTK* – substance list:	Potassium Permanganate is listed
PA RTK hazardous substance list:	Potassium Permanganate is listed

\*RTK - Right to Know

## SECTION XVI

## **Other Information**

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