

Printing date 07/14/2015 Reviewed on 07/14/2015

1 Identification

· Product identifier

· Trade name: Cloud Out

· Article number: No other identifiers

· Recommended use and restriction on use

· Recommended use: Water treatment

· Restrictions on use: See Sections 8 and 10 for further information.

· Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

APi

880 Jupiter Park Drive, Suite 14

Jupiter, FL 33458 USA Phone: 561-743-0449

· Emergency telephone number:

ChemTel Inc.

(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

· Classification of the substance or mixture



GHS03 Flame over circle

Ox. Sol. 3 H272 May intensify fire; oxidizer.



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed. Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

· Additional information:

There are no other hazards not otherwise classified that have been identified.

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

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· Hazard pictograms









GHS03 GHS05 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

Trade Secret Trade Secret Trade Secret Trade Secret Trade Secret

· Hazard statements

H272 May intensify fire; oxidizer. H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.

· Precautionary statements

P221 Take any precaution to avoid mixing with combustibles.

P210 Keep away from heat.

P284 In case of inadequate ventilation wear respiratory protection. P220 Keep/Store away from clothing/combustible materials.

P261 Avoid breathing dust.

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P305+P351+P338 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.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P330 Rinse mouth.

P310

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P302+P352 If on skin: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

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- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 3Fire = 3Reactivity = 3

The substance possesses oxidizing properties.

· HMIS-ratings (scale 0 - 4)



*3 Health = *3 3 Fire = 3 REACTIVITY 3 Reactivity = 3

- * Indicates a long term health hazard from repeated or prolonged exposures.
- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable. · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
	Trade Secret	
	Ox. Sol. 3, H272 Resp. Sens. 1, H334 Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
	Trade Secret	
	Trade Secret	
	Trade Secret	
	Trade Secret	
	Trade Secret Eye Dam. 1, H318 Acute Tox. 4, H302; Acute Tox. 4, H332	

· Additional information:

For the listed ingredient(s), the identity and exact percentage(s) are being withheld as a trade secret.

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4 First-aid measures

· Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

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

Take affected persons out into the fresh air.

· After inhalation:

Supply fresh air.

Seek immediate medical advice.

If experiencing respiratory symptoms: Call a poison center/doctor.

· After skin contact:

Brush off loose particles from skin.

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact:

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· Information for doctor:

· Most important symptoms and effects, both acute and delayed

Asthma attacks

Breathing difficulty

Coughing

Allergic reactions

Gastric or intestinal disorders when ingested.

Irritant to skin and mucous membranes.

Strong irritant with the danger of severe eye injury.

May cause respiratory irritation.

· Danger

Danger of impaired breathing.

Danger of gastric perforation.

Causes serious eve damage.

Harmful if swallowed.

· Indication of any immediate medical attention and special treatment needed

Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Contains dipotassium peroxodisulphate. May produce an allergic reaction.

In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

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5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · For safety reasons unsuitable extinguishing agents: None.
- · Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

May intensify fire; oxidizer.

- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information Cool endangered receptacles with water in flooding quantites.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Isolate area and prevent access.

Take any precaution to avoid mixing with combustibles.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

· 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.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be regularly removed.

Use only in well ventilated areas.

Take any precaution to avoid mixing with combustibles.

· Information about protection against explosions and fires:

Keep respiratory protective device available.

Contact with combustible material may cause fire.

May intensify fire; oxidizer.

Keep/Store away from clothing/combustible materials.

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- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles:

Provide ventilation for receptacles.

Protect from humidity and water.

Store only in the original receptacle.

Unsuitable material for receptacle: aluminium.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from flammable substances.

Do not store together with alkalis (caustic solutions).

· Further information about storage conditions:

Keep containers tightly sealed.

This product is hygroscopic.

· 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 item 7.
- · Control parameters

· Components with limit values that require monitoring at the workplace:			
Trade Secret			
TLV (USA)	Long-term value: 0.1 mg/m³ as Persulfates		
EV (Canada)	Long-term value: 0.1 mg/m³		
Trade Secret			
REL (USA)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³		
TLV (USA)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³		
EL (Canada)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³ fume		
EV (Canada)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³ fume		
LMPE (Mexico)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³		
Trade Secret			
EV (Canada)	Long-term value: 5 mg/m³		
Trade Secret			
REL (USA)	Long-term value: 2 mg/m³ as Al		
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TLV (USA) Long-term value: 1* mg/m³ as Al; *as respirable fraction EL (Canada) Long-term value: 2 mg/m³

- · Additional information: No further relevant information available.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not breathe dust.

Avoid contact with the eyes and skin.

· Engineering controls:

Take any precaution to avoid mixing with combustibles.

Provide adequate ventilation.

· Breathing equipment:

Suitable respiratory protective device recommended.

Use suitable respiratory protective device when high concentrations are present.

For spills, respiratory protection may be advisable.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· 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.

· Eve protection:

Contact lenses should not be worn.



Safety glasses

- Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

No further relevant information available.

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Crystalline powder

Color: White
Odorless
Odor threshold: Not determined.

• pH-value: Not applicable.

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

• Flash point: Not applicable.

· Flammability (solid, gaseous): Contact with combustible material may cause fire.

Auto-ignition temperature: Not determined.
 Decomposition temperature: Not determined.

· **Auto igniting:** Product is not self-igniting.

· Danger of explosion: Not determined.

· Explosion limits:

Lower: Not determined. **Upper:** Not determined.

Oxidizing properties
 Oxidizer

· Vapor pressure: Not applicable.

• Density at 20 °C (68 °F): 2.48 g/cm³ (20.696 lbs/gal)

Relative density
Vapour density
Evaporation rate
Not determined.
Not applicable.
Not applicable.

· Solubility in / Miscibility with

Water: Soluble.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not applicable. **Kinematic:** Not applicable.

• Other information No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

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· Chemical stability

· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· Possibility of hazardous reactions

Reacts with humid air.

Reacts with strong alkali.

Reacts with strong acids.

Reacts with water.

Reacts with powdered metals.

Reacts with metals forming hydrogen.

Reacts with organic materials.

Acts as an oxidizing agent on organic materials such as wood, paper and fats.

Toxic fumes may be released if heated above the decomposition point.

As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Sulfur oxides (SOx)

Chlorine compounds

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:

Trade Secret

Oral LD50 802 mg/kg (rat)

Trade Secret

Oral LD50 1650 mg/kg (rat)

Trade Secret

Oral LD50 1700 mg/kg (rat)

- 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: May cause sensitisation by inhalation and skin contact.
- · Subacute to chronic toxicity: No further relevant information available.
- · Additional toxicological information:

Harmful

Irritant

Danger through skin absorption.

Toxic and/or corrosive effects may be delayed up to 24 hours.

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· Carcinogenic categories

· NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Probable Routes of Exposure

Ingestion.

Inhalation.

Eve contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

May cause sensitisation by inhalation and skin contact.

Harmful if swallowed.

Irritating to respiratory system.

Irritating to skin.

· Repeated Dose Toxicity:

May cause damage to organs through prolonged or repeated exposure.

Repeated exposures may result in skin and/or respiratory sensitivity.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure May cause respiratory irritation.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

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.
- · Ecotoxical effects:
- · Remark: After neutralization a reduction of the harming action may be recognized
- · Additional ecological information:
- · General notes:

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

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Other adverse effects No further relevant information available.

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13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

Dilute concentrate with water and neutralize afterwards with suitable alkali material (sodium hydroxide solution, lime). The formed neutral salts are relatively environment-friendly.

The user of this 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. Residual materials should be treated as hazardous.

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

14 Transport information

- · UN-Number
- · DOT, ADR, IMDG, IATA

UN1492

· UN proper shipping name



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 kg (11 lb.)

· DOT, IMDG, IATA

· ADR

POTASSIUM PERSULPHATE, MIXTURE
1492 POTASSIUM PERSULPHATE, MIXTURE

· Transport hazard class(es)

· DOT



· Class 5.1 Oxidizing substances

· Label 5.1

· ADR



· Class 5.1 (O2) Oxidizing substances

· Label 5.1

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· IMDG, IATA



· Class 5.1 Oxidizing substances

· Label 5.1

· Packing group

· DOT, ADR, IMDG, IATA

· Environmental hazards:

· Marine pollutant: No

Special precautions for user
 Warning: Oxidizing substances

Danger code (Kemler):EMS Number:50F-A,S-Q

· 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: 25 kg

On cargo aircraft only: 100 kg

• UN "Model Regulation": UN1492, Potassium persulfate, 5.1, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- · SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· State Right to Know Listings

None of the ingredients is listed.

- · Canadian substance listings:
- · Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

Trade Secret
Trade Secret

· Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products 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.

Date of preparation / last revision 07/14/2015 / -

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified 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 Ox. Sol. 3: Oxidising Solids, Hazard Category 3

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Met. Corr.1: Corrosive to metals, Hazard Category 1
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific torget organ toxicity. Single exposure. Hazard C

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· Sources

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