

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

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

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Tox. 4 H302 Harmful if swallowed.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**

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

· **Hazard pictograms:**



GHS05 GHS07 GHS08

- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Trade Secret

- **Hazard statements:**
H302 Harmful if swallowed.
H315 Causes skin irritation.

(Cont'd. on page 2)



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 1)

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:

P284 In case of inadequate ventilation wear respiratory protection.

P261 Avoid breathing dust.

P264 Wash thoroughly after handling.

P280 Wear protective gloves and eye 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.

P310 Immediately call a POISON CENTER/doctor.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

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.

Classification system**NFPA ratings (scale 0 - 4)**

Health = 3

Fire = 1

Reactivity = 1

HMIS-ratings (scale 0 - 4)

Health = *3

Fire = 1

Reactivity = 1

* - Indicates a long term health hazard from repeated or prolonged exposures.

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

(Cont'd. on page 3)



Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 2)

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

Trade Secret	<ul style="list-style-type: none"> ⚠ 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	<ul style="list-style-type: none"> ⚠ Eye Dam. 1, H318 	
Trade Secret	<ul style="list-style-type: none"> ⚠ Acute Tox. 4, H302; Eye Irrit. 2A, H319 	
Trade Secret	<ul style="list-style-type: none"> ⚠ Acute Tox. 4, H302; Eye Irrit. 2A, H319 	
Trade Secret	<ul style="list-style-type: none"> ⚠ Met. Corr. 1, H290; Eye Dam. 1, H318 	
Trade Secret	<ul style="list-style-type: none"> ⚠ 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.
For the wording of the listed Hazard Statements refer to section 16.

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.

(Cont'd. on page 4)



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 3)

Do not induce vomiting; immediately call for medical help.

· **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 eye 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.

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

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.

Contains oxidizing agent.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information:** Cool endangered receptacles with water in flooding quantities.

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.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

(Cont'd. on page 5)



Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 4)

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.

Information about protection against explosions and fires:

- Keep respiratory protective device available.
- Keep/Store away from clothing/combustible materials.

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.
- Use only receptacles specifically permitted for this substance/product.
- 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 relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

Trade Secret

TLV (USA)	Long-term value: 0.1 mg/m ³ as Persulfates
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EV (Canada)	Long-term value: 0.1 mg/m ³
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Trade Secret

REL (USA)	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³
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(Cont'd. on page 6)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 5)

TLV (USA)	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³
EL (Canada)	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³ fume
EV (Canada)	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³ fume
LMPE (Mexico)	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³
Trade Secret	
EV (Canada)	Long-term value: 5 mg/m ³
Trade Secret	
REL (USA)	Long-term value: 2 mg/m ³ as Al
TLV (USA)	Long-term value: 1* mg/m ³ as Al;*as respirable fraction
EL (Canada)	Long-term value: 2 mg/m ³ as Al

· **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.

Particulate mask should filter at least 99% of airborne particles.

· **Protection of hands:**



Protective gloves

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

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

(Cont'd. on page 7)



Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 6)

- **Limitation and supervision of exposure into the environment**
No relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **Appearance:**

- **Form:** Crystalline powder
- **Color:** White
- **Odor:** Odorless
- **Odor threshold:** Not determined.

- **pH-value:** Not applicable.
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** Not determined.

- **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:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** 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 relevant information available.

(Cont'd. on page 8)



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 7)

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **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.
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:** Excessive heat.
- **Incompatible materials:** No relevant information available.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Sulfur oxides (SO_x)
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 relevant information available.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

(Cont'd. on page 9)



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 8)

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye 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 (carcinogenicity, 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 relevant information available.**· Persistence and degradability** No relevant information available.**· Bioaccumulative potential:** No relevant information available.**· Mobility in soil:** No relevant information available.**· Ecotoxicological 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 relevant information available.

(Cont'd. on page 10)



Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 9)

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.

· **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 Not regulated.

· **UN proper shipping name**

· DOT, ADR, IMDG, IATA Not regulated.

· **Transport hazard class(es)**

· DOT, ADR, IMDG, IATA

· Class Not regulated.

· **Packing group**

· DOT, ADR, IMDG, IATA Not regulated.

· **Environmental hazards**

· **Marine pollutant:** No

· **Special precautions for user**

Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

(Cont'd. on page 11)



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 10)

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**
None of the ingredients are listed.

· **Section 304 (emergency release notification):**
None of the ingredients are listed.

· **Sections 311/312 (hazardous chemical threshold planning quantity in pounds):**
None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**
None of the ingredients are 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 are listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**
None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**
None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**
None of the ingredients are listed.

· **Canadian substance listings**

· **Canadian Domestic Substances List (DSL):**
All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%):**
None of the ingredients are listed.

(Cont'd. on page 12)



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 03/08/2016

Revision: 03/08/2016

Trade name: Cloud Out

(Cont'd. of page 11)

Canadian Ingredient Disclosure list (limit 1%):

Trade Secret

Trade Secret

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** 03/08/2016 / -

· **Abbreviations and acronyms:**

ADR: 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

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

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Ox. Sol. 3: Oxidising Solids, Hazard Category 3

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 target organ toxicity - Single exposure, Hazard Category 3

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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