

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

1 Identification

- **Product identifier**
- **Trade name:** Awesome Orange Aluminum Cleaner & Brightener
- **Article number:** AOACB
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Alpha Chem of Georgia, Inc.
P.O. Box 1265
Douglas, GA 31534
- **Information department:** Product Safety Department
- **Emergency telephone number:** Chemtrec 1-800-424-9300



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

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



GHS05



GHS06

- **Signal word** Danger
- **Hazard-determining components of labeling:**
hydrofluoric acid
- **Hazard statements**
Toxic if swallowed or if inhaled.
Fatal in contact with skin.
Causes severe skin burns and eye damage.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Do not breathe dust/fume/gas/mist/vapours/spray.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 1)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Remove/Take off immediately all contaminated clothing.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	4	Health = 4
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **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:**

7664-39-3	hydrofluoric acid	2.5-10%
7664-38-2	phosphoric acid 75%	2.5-10%

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Seek immediate medical advice.

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.

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Seek immediate medical advice.

Delayed reactions up to and including fatal pulmonary edema to inhaled concentrations of HF may not be apparent for hours following initial exposure.

Use a respiration bag or breathing device.

Do not use mouth to mouth or mouth to nose resuscitation.

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 2)

Rub in Ca-gluconate solution or Ca-gluconate gel immediately.

Immediately wash with water and soap and rinse thoroughly.

· After eye contact:

Seek medical treatment.

Protect unharmed eye.

Remove contact lenses if able to do so.

Irrigate open eyelids with 500-1000cc's of a 1% calcium gluconate in saline solution.

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

· After swallowing:

Seek immediate medical attention with emphasis on Hydrofluoric Acid exposure.

A person vomiting while lying on their back should be turned onto their side.

Do not induce vomiting; immediately call for medical help.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders

Nausea

Corrosive and extremely irritating to all tissues.

Latent skin burns with delayed onset (up to 8 hours) can occur at lower concentrations (below 2%) exposure to this product. Skin burns start with an itching sensation and proceed to necrosis of effected tissue.

Cyanosis

Cramp

Thirst

Breathing difficulty

· Danger

Danger of convulsion.

Danger of impaired breathing.

Danger of gastric perforation.

Danger of pulmonary edema.

Danger of hypocalcemia

Causes Permanent Blindness

· Indication of any immediate medical attention and special treatment needed

Later observation for pneumonia and pulmonary edema.

Medical supervision for at least 48 hours.

If blue colouring appears (lips, ear-lobes, finger-nails), give oxygen treatment as quickly as possible.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· Special hazards arising from the substance or mixture Hydrogen fluoride (HF)

· Advice for firefighters

Product is not flammable however due to the possible evolution of toxic gases especially HF fight surrounding fires wearing full SCBA and turnout gear from the upwind side of the fire. Avoid breathing fumes, vapors and gases from this product during fire situations.

· Protective equipment:

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

USA

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 3)

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Keep people at a distance and stay upwind.

Ensure adequate ventilation

Wear protective clothing.

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **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

- **Precautions for safe handling**

This product will attack glass, concrete, and certain metals.

Avoid splashes or spray in enclosed areas.

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- **Information about protection against explosions and fires: Keep respiratory protective device available.**

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Unsuitable material for receptacle: glass or ceramic.

Unsuitable material for receptacle: steel.

Unsuitable material for receptacle: aluminium.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from metals.

Do not store together with alkalis (caustic solutions).

- **Further information about storage conditions: Keep receptacle tightly sealed.**

- **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.**

(Contd. on page 5)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 4)

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

7664-39-3 hydrofluoric acid

PEL	Long-term value: 3 ppm as F
REL	Long-term value: 2.5 mg/m ³ , 3 ppm Ceiling limit value: 5* mg/m ³ , 6* ppm *15-min, as F
TLV	Long-term value: 0.41 mg/m ³ , 0.5 ppm Ceiling limit value: 1.64 mg/m ³ , 2 ppm as F; Skin; BEI

7664-38-2 phosphoric acid 75%

PEL	Long-term value: 1 mg/m ³
REL	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
TLV	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³

· **Ingredients with biological limit values:**

7664-39-3 hydrofluoric acid

BEI	3 mg/g creatinine Medium: urine Time: prior to shift Parameter: Flourides (background)
	10 mg/g creatinine Medium: urine Time: end of shift Parameter: Flourides (background)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

- Use suitable respiratory protective device when high concentrations are present.
- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 5)

· **Material of gloves**

Neoprene gloves

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

Butyl rubber, BR

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.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Color: Clear

· **Odor:** Acrid

· **Odour threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** < 1

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.045 g/cm³ (8.721 lbs/gal)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

(Contd. on page 7)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 6)

- | | |
|---------------------------------------------------|--------------------------------------------|
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 0.0 % |
| Water: | 86.0 % |
| VOC content: | 14.0 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 - Attacks materials containing glass and silicate.
 - Contact with strong acids releases hydrogen fluoride.
 - Reacts with alkali (lyes).
 - Toxic fumes may be released if heated above the decomposition point.
 - Reacts with metals forming hydrogen.
 - Develops toxic gases / fumes.
 - Reacts with various metals.
 - Reacts with amines.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Phosphorus compounds
 - Hydrogen fluoride

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - on the skin:** Strong caustic effect on skin and mucous membranes.
 - on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 - The product shows the following dangers according to internally approved calculation methods for preparations:
 - Corrosive
 - Very toxic
 - Danger through skin absorption.
 - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

(Contd. on page 8)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 7)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

1

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

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

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **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, IMDG, IATA**

UN2922

· **UN proper shipping name**

· **DOT**

· **IMDG, IATA**

Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid)

CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROFLUORIC ACID)

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 8)

· **Transport hazard class(es)**

· **DOT**



· **Class** 8 Corrosive substances
 · **Label** 8+6.1

· **IMDG, IATA**



· **Class** 8 Corrosive substances
 · **Label** 8+6.1

· **Packing group**

· **DOT, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user**

· **Danger code (Kemler):** 86

· **EMS Number:** F-A,S-B

· **Segregation groups** Acids

· **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: 1 L
 On cargo aircraft only: 30 L

· **IMDG**

· **Limited quantities (LQ)** 1L

· **Excepted quantities (EQ)** Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN2922, Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid), 8 (6.1), II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 9)

· **Section 313 (Specific toxic chemical listings):**

7664-38-2	phosphoric acid 75%
-----------	---------------------

· **TSCA (Toxic Substances Control Act):**

7664-38-2	phosphoric acid 75%
-----------	---------------------

7732-18-5	water, distilled, conductivity or of similar purity
-----------	-----------------------------------------------------

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is 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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

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.

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

· **Hazard pictograms**



GHS05 GHS06

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

hydrofluoric acid

· **Hazard statements**

Toxic if swallowed or if inhaled.

Fatal in contact with skin.

Causes severe skin burns and eye damage.

· **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Do not breathe dust/fume/gas/mist/vapours/spray.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Remove/Take off immediately all contaminated clothing.

Store locked up.

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

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/21/2014

Reviewed on 10/21/2014

Trade name: Awesome Orange Aluminum Cleaner & Brightener

(Contd. of page 10)

· 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.

· Department issuing MSDS: Environment protection department.**· Date of preparation / last revision** 10/21/2014 / -**· 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)

VOC: Volatile Organic Compounds (USA, EU)

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 2: Acute toxicity, Hazard Category 2

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

USA