

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**1 Identification**

- **Product identifier**
- **Trade name: Fosetyl-Aluminum Standard (1X1 mL)**
- **Part number: PST-5405D100A01**
- **CAS Number:**  
39148-24-8
- **EC number:**  
254-320-2
- **Index number:**  
006-095-00-5
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Agilent Technologies, Inc.  
5301 Stevens Creek Blvd.  
Santa Clara, CA 95051 USA
- **Information department:**  
Telephone: 800-227-9770  
e-mail: pdl-msds\_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



Acute Tox. 4 H332 Harmful if inhaled.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
fosetyl-aluminum
- **Hazard statements**  
Harmful if inhaled.
- **Precautionary statements**  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.

(Contd. on page 2)

US

## Safety Data Sheet acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**Trade name: Fosetyl-Aluminum Standard (1X1 mL)**

(Contd. of page 1)

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



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
39148-24-8 fosetyl-aluminum
- **Identification number(s)**
- **EC number:** 254-320-2
- **Index number:** 006-095-00-5

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 3)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**Trade name: Fosetyl-Aluminum Standard (1X1 mL)**

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** 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.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

Substance is not listed.

- **PAC-2:**

Substance is not listed.

- **PAC-3:**

Substance is not listed.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
 Thorough dedusting.  
 Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **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.
- **Control parameters**

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

**39148-24-8 fosetyl-aluminum**

PEL	Long-term value: 15*, 5** mg/m <sup>3</sup> *Total dust; ** Respirable fraction
-----	--

REL	Long-term value: 10* 5** mg/m <sup>3</sup> as Al*Total dust**Respirable/pyro powd./welding f.
-----	--

(Contd. on page 4)

## Safety Data Sheet

### acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**Trade name: Fosetyl-Aluminum Standard (1X1 mL)**

(Contd. of page 3)

TLV	Long-term value: 1* mg/m <sup>3</sup> as Al; *as respirable fraction
-----	---

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Breathing equipment:**

When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.

Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

· **Protection of hands:**

Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

· **Material of gloves**

For normal use: nitrile rubber, 11-13 mil thickness

For direct contact with the chemical: butyl rubber, 12-15 mil thickness

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.

· **Penetration time of glove material**

For normal use: nitrile rubber: 1 hour

For direct contact with the chemical: butyl rubber: >4 hours

· **Eye protection:** Not required.

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· **Form:** Powder

· **Color:** Colorless

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

· **Melting point/Melting range:** 215 °C (419 °F)

· **Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

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

(Contd. on page 5)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**Trade name: Fosetyl-Aluminum Standard (1X1 mL)**

(Contd. of page 4)

- |  |                       |
|--|-----------------------|
| <b>· Explosion limits:</b>   |                       |
| <b>Lower:</b>  | Not determined.       |
| <b>Upper:</b>  | Not determined.       |
| <b>· Vapor pressure at 20 °C (68 °F):</b> 0.00001 hPa (0 mm Hg)              |                       |
| <b>· Density at 20 °C (68 °F):</b> 1.25 g/cm <sup>3</sup> (10.43125 lbs/gal) |                       |
| <b>· Relative density</b> Not determined.                                    |                       |
| <b>· Vapor density</b> Not applicable.                                       |                       |
| <b>· Evaporation rate</b> Not applicable.                                    |                       |
| <b>· Solubility in / Miscibility with Water at 20 °C (68 °F):</b> 122 g/l    |                       |
| <b>· Partition coefficient (n-octanol/water):</b> Not determined.            |                       |
| <b>· Viscosity:</b>  |                       |
| <b>Dynamic:</b>  | Not applicable.       |
| <b>Kinematic:</b>  | Not applicable.       |
| <b>VOC content:</b>  | 0.00 %                |
|  | 0.0 g/l / 0.00 lb/gal |
| <b>· Other information</b> No further relevant information available.        |                       |

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### \* 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

<b>· LD/LC50 values that are relevant for classification:</b>		
<b>ATE (Acute Toxicity Estimate)</b>		
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	1,730 mg/L (rat)
<b>39148-24-8 fosetyl-aluminum</b>		
Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	1,730 mg/L (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

(Contd. on page 6)

## Safety Data Sheet

### acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**Trade name: Fosetyl-Aluminum Standard (1X1 mL)**

(Contd. of page 5)

- **Additional toxicological information:**

- **Carcinogenic categories**

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

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

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

Substance is not listed.

### 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.

- **Additional ecological information:**

- **General notes:** Not hazardous for water.

- **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.

### 14 Transport information

- **Not Regulated, De minimus Quantities** -

- **UN-Number**

- **DOT, ADN, IMDG, IATA** not regulated

- **UN proper shipping name**

- **DOT, ADN, IMDG, IATA** not regulated

- **Transport hazard class(es)**

- **DOT, ADN, IMDG, IATA**

- **Class** not regulated

(Contd. on page 7)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**Trade name: Fosetyl-Aluminum Standard (1X1 mL)**

(Contd. of page 6)

- |   |                 |
|---|-----------------|
| <b>· Packing group</b>  |                 |
| <b>· DOT, IMDG, IATA</b>  | not regulated   |
| <b>· Environmental hazards:</b>   | Not applicable. |
| <b>· Special precautions for user</b>   | Not applicable. |
| <b>· Transport in bulk according to Annex II of MARPOL/73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>   | not regulated   |

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

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

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

**· TSCA new (21st Century Act): (Substances not listed)**

39148-24-8	fosetyl-aluminum
------------	------------------

**· Proposition 65**
**· Chemicals known to cause cancer:**

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

**· Chemicals known to cause developmental toxicity:**

Substance is not listed.

**· Carcinogenic categories**
**· EPA (Environmental Protection Agency)**

Substance is not listed.

**· TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

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

Substance is not listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

US

(Contd. on page 8)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 04/01/2019

Version Number 2

Reviewed on 04/01/2019

**Trade name: Fosetyl-Aluminum Standard (1X1 mL)**

(Contd. of page 7)

**16 Other information**

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· **Date of preparation / last revision** 04/01/2019 / 1

· **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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

· **\* Data compared to the previous version altered.**