



**Safety Data Sheet**  
according to Regulation (EC) No. 453/2010

**PS2585-18 Aluminum alloy AISi12**

Revision date: 05/12/2014

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product form : Solid mixture  
Product name. : PS2585-18 Aluminum alloy AISi12  
Product group : Aluminium atomised (Aluminium Silicon Alloy)

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**1.2.1. Relevant identified uses**

Main use category : For use with Phenix™ and ProX™ 100, 200, 300 systems

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

3D Systems  
Parc Européen d'Entreprises  
63200 Riom - FRANCE  
T +33 (0)4 73 33 45 85 - F 33 (0) 4 73 33 45 86

**1.4. Emergency telephone number**

Country	Official advisory body	Address	Emergency number
UNITED KINGDOM	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP] Show CLP information + DPD classification in section 2.1**

Not classified

**Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]**

Not classified

**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements**

Powders have been subject to test N:5, Criteria for substances or mixtures which in contact with water emit flammable gases and are not classified as hazardous according to this category. Powders have been subject to test N:2, Flammable solids and are not classified as hazardous according to this category.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

Other hazards not contributing to the classification : Powder with air can make an explosive mixture . Reacts on exposure to water (moisture): release of highly flammable gases/vapours.



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**SECTION 3: Composition/information on ingredients**

**3.1. Substance**

Not applicable

**3.2. Mixture**

Name	Product identifier	%	Classification according to Directive 67/548/EEC
aluminium powder (stabilised)	(CAS No) 7429-90-5 (EC no) 231-072-3 (EC index no) 013-002-00-1 (REACH-no) 01-2119529243-45	70 - 90	F; R11 F; R15
silicon, crystalline substance with national workplace exposure limit(s) (GB)	(CAS No) 7440-21-3 (EC no) 231-130-8	10 - 20	Not classified

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
aluminium powder (stabilised)	(CAS No) 7429-90-5 (EC no) 231-072-3 (EC index no) 013-002-00-1 (REACH-no) 01-2119529243-45	70 - 90	Water-react. 2, H261 Flam. Sol. 1, H228
silicon, crystalline substance with national workplace exposure limit(s) (GB)	(CAS No) 7440-21-3 (EC no) 231-130-8	10 - 20	Not classified

Full text of R- and H-phrases: see section 16

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

- First-aid measures general : Not applicable.
- First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. In case of irritation of the respiratory tract seek medical advice.
- First-aid measures after skin contact : Wash with water and soap.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Take victim to a doctor if irritation persists.
- First-aid measures after ingestion : Rinse mouth with water. Drink plenty of water. Do not induce vomiting.

**4.2. Most important symptoms and effects, both acute and delayed**

- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : None under normal use.
- Symptoms/injuries after eye contact : May cause slight irritation.
- Symptoms/injuries after ingestion : No data available.

**4.3. Indication of any immediate medical attention and special treatment needed**

None.



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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

- suitable extinguishing media : Sand/earth. Dry powder.  
Unsuitable extinguishing media : water. Foam. ABC powder. CO2 Carbon dioxide.

**5.2. Special hazards arising from the substance or mixture**

- Fire hazard : Material presenting a minor fire hazard.  
Explosion hazard : Explosive dust-air mixtures may form.  
Hazardous decomposition products in case of fire : Reacts on exposure to water (moisture): release of highly flammable gases/vapours.

**5.3. Advice for firefighters**

- Protection during firefighting : Self-contained breathing apparatus.

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

- General measures : Prevent dust cloud formation. In case of dust production: no naked flames or sparks.

**6.1.1. For non-emergency personnel**

- Protective equipment : Safety glasses.  
Measures in case of dust release : In case of dust production: no naked flames or sparks.

**6.1.2. For emergency responders**

- Protective equipment : Wear gloves. Wear a dust mask and safety glasses.

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

- For containment : Dam up the solid spill.  
Methods for cleaning up : Solid spill: shovel.

**6.4. Reference to other sections**

No additional information available

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**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

- Additional hazards when processed : Avoid generation of dust.  
Precautions for safe handling : Keep away from sources of ignition - No smoking. Take precautions against electrostatic charges.

**7.2. Conditions for safe storage, including any incompatibilities**

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.  
Storage conditions : Keep container closed when not in use. Store in dry protected location to prevent any moisture contact. Do not mix with acids.  
Incompatible products : strong acids. Oxydizing.  
Heat and ignition sources : ignition sources.



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Prohibitions on mixed storage : (strong) acids. highly flammable materials.  
Special rules on packaging : Store in a closed container.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

PS2585-18 Aluminum AISi12		
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> 8-hour TWA of respirable dust.
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> 8-hour TWA of inhalable dust

  

silicon, crystalline (7440-21-3)		
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>

### 8.2. Exposure controls

Materials for protective clothing : Not applicable.  
Hand protection : Not required for normal conditions of use.  
Eye protection : Use glasses if there is a risk of contact with eyes.  
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Dust production: dust mask with filter type P1. Dust production: dust mask with filter type P2. Dust production: dust mask with filter type P3.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Appearance : Powder.  
Colour : Grey.  
Odour : Odourless.  
Odour threshold : No data available  
pH : NA  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Self ignition temperature : 580 °C  
Decomposition temperature : No data available



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Flammability (solid, gas)	: > 400 °C LIT 5 mm
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,96 - 1,44
Solubility	: Insoluble in water. Organic solvent: Insoluble
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Dust may form explosive mixture in air.
Oxidising properties	: No data available
Explosion limits	: 30 g/m <sup>3</sup> MEC

**9.2. Other information**

Minimum ignition energy	: ≈
Additional information	: Product is not self-igniting

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**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

With (some) acids: release of highly flammable gases/vapours.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

In contact with water releases flammable gases.

**10.4. Conditions to avoid**

Open flame. Sparks.

**10.5. Incompatible materials**

No additional information available

**10.6. Hazardous decomposition products**

No additional information available



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**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity : Not classified

<b>silicon, crystalline (7440-21-3)</b>	
LD50 oral rat	> 3160 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; >5000 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Rabbit; Weight of evidence)

Skin corrosion/irritation : Not classified  
pH: NA

Serious eye damage/irritation : Not classified  
pH: NA

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - general : Classification concerning the environment: not applicable.

**12.2. Persistence and degradability**

<b>silicon, crystalline (7440-21-3)</b>	
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

**12.3. Bioaccumulative potential**

No additional information available

**12.4. Mobility in soil**

<b>PS2585-18 Aluminum AISi12</b>	
Ecology - soil	Biodegradability in soil: no data available.

<b>silicon, crystalline (7440-21-3)</b>	
Surface tension	0,74 N/m (1410 °C)



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**12.5. Results of PBT and vPvB assessment**

<b>PS2585-18 Aluminum AISi12</b>
This substance/mixture does not meet the PBT criteria of REACH, annex XIII.
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

**12.6. Other adverse effects**

Other adverse effects : No information available.

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**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Regional legislation (waste) : Disposal must be done according to official regulations.  
EURAL code : 12 01 04 - non-ferrous metal dust and particles

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**SECTION 14: Transport information**

In accordance with ADR / RID / ADN / IMDG / ICAO / IATA

**14.1. UN number**

Not regulated for transport

**14.2. UN proper shipping name**

Not applicable

**14.3. Transport hazard class(es)**

Not applicable

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available.

**14.6. Special precautions for user**

**14.6.1. Overland transport**

No additional information available

**14.6.2. Transport by sea**

No additional information available

**14.6.3. Air transport**

No additional information available

**14.6.4. Inland waterway transport**

Carriage prohibited (ADN) : No

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable



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**SECTION 15: Regulatory information**

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

**15.1.1. EU-Regulations**

Contains no substances with Annex XVII restrictions  
Contains no REACH candidate substance  
Contains no REACH Annex XIV substances.

Seveso Information :

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

No additional information available

**SECTION 16: Other information**

Indication of changes:

SDS Creation Date: ..... 17/12/2012

SDS Revision #: ..... -02-A

SDS Revision Date: ..... 05 December 2014

Reason for Revision: ..... Revised safety data sheet in accordance with commission regulation (EU) No 453/2010

Full text of R-, H- and EUH-phrases::

Flam. Sol. 1	Flammable solids, Category 1
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2
H228	Flammable solid
H261	In contact with water releases flammable gases
R11	Highly flammable
R15	Contact with water liberates extremely flammable gases
F	Highly flammable

SDS UE (Annexe II REACH)

[www.3dsystems.com](http://www.3dsystems.com)

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