

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

- **Date of issue:** 15.07.2004
- **1.1 Product identifier**
- **Trade name:** *P400 SC*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation:** *Alkaline cleaner / detergent*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**  
*Stratasys, Inc.  
7665 Commerce Way  
Eden Prairie, MN 55344  
USA*

*Tel +1 952 937 3000  
Fax +1 952 937 0070*

*In Europe:*

*C.S.B. GmbH  
Parkstraße 29  
D-47829 Krefeld  
Germany*

*Tel.: +49-2151-6520860  
Fax: +49-2151-6520869  
E-Mail: info@csb-online.de*

- **E-mail address of the competent person responsible for the Safety Data Sheet:** *sdb@csb-online.de*
- **Informing department:** *Sales / Technics*
- **1.4 Emergency telephone number:** *As above or next toxicological information centre*

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



*GHS05 corrosion*

- *Skin Corr. 1A H314 Causes severe skin burns and eye damage.*
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



*C; Corrosive*

- *R35: Causes severe burns.*
- **Classification system:**  
*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.*

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
*The product is classified and labelled according to the CLP regulation.*
- **Hazard pictograms**



*GHS05*

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
*Sodium hydroxide  
Sodiumsilicate, pentahydrate*
- **Hazard statements**  
*H314 Causes severe skin burns and eye damage.*

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## Safety data sheet

according to 1907/2006/EC, Article 31

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· **Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 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 or doctor/physician.  
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
 P405 Store locked up.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.  
 · **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 497-19-8 EINECS: 207-838-8 Index number: 011-005-00-2	Sodium carbonate ☒ Xi R36 ☠ Eye Irrit. 2, H319	50-100%
CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6	Sodium hydroxide ☒ C R35 ☠ Met. Corr.1, H290; Skin Corr. 1A, H314	10-25%
CAS: 151-21-3 EINECS: 205-788-1	sodium dodecyl sulphate ☒ Xn R21/22; ☒ Xi R36/38 ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.5%
CAS: 10213-79-3 EINECS: 229-912-9 Index number: 014-010-00-8	Sodiumsilicate, pentahydrate ☒ C R34; ☒ Xi R37 ☠ Met. Corr.1, H290; Skin Corr. 1B, H314; ☠ STOT SE 3, H335	< 2.5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

· **Ingredients according to Regulation (EC) No 648/2004:**

anionic surfactants, polycarboxylates, non-ionic surfactants	< 5%
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### SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:** Immediately remove any clothing contaminated by the product.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor.  
 In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact:**

Instantly rinse with water.  
 Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

· **After eye contact:**

Rinse opened eye for several minutes under running water.  
 Call a doctor immediately.  
 Use eye protection.  
 Remove contact lenses, if present and easy to do. Continue rinsing.

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- **After swallowing:**  
*Drink copious amounts of water and provide fresh air. Instantly call for doctor.*  
*Do not induce vomiting - Danger of perforation!*
- **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*
- **4.3 Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
*Carbon dioxide (CO<sub>2</sub>), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.*
- **For safety reasons unsuitable extinguishing agents** *none*
- **5.2 Special hazards arising from the substance or mixture**  
*Sulphur oxides (SO<sub>x</sub>)*  
*Sodium oxide (Na<sub>2</sub>O)*  
*Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)*
- **5.3 Advice for firefighters**
- **Protective equipment:** *Wear self-contained breathing apparatus.*
- **Additional information**  
*Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.*

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
*Wear protective equipment. Keep unprotected persons away.*  
*Ensure adequate ventilation.*  
*Avoid causing dust.*  
*Do not breathe dust.*  
*Avoid contact with skin and eyes.*
- **6.2 Environmental precautions:**  
*Do not allow to enter drainage system, surface or ground water.*  
*Inform respective authorities in case product reaches water or sewage system.*
- **6.3 Methods and material for containment and cleaning up:**  
*Ensure adequate ventilation.*  
*Collect mechanically.*  
*Send for recovery or disposal in suitable containers.*
- **6.4 Reference to other sections** *See Section 8 for information on personal protection equipment.*

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
*Prevent formation of dust.*  
*Any deposit of dust which cannot be avoided must be removed regularly.*  
*Do not breathe dust.*  
*Avoid skin and eye contact under any circumstances.*  
*Make sure that all applicable workplace limits are observed.*  
*When diluting, always stir the product into standing water.*
- **Information about protection against explosions and fires:** *No special measures required.*
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**  
*Observe all local and national regulations for storage of water polluting products.*

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- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed containers.  
Store container in a well ventilated position.  
Store in a locked cabinet and out of the reach of children.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

· **8.1 Control parameters**

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

**1310-73-2 Sodium hydroxide**

WEL (Great Britain) Short-term value: 2 mg/m<sup>3</sup>

- **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Instantly remove any contaminated garments.

Do not breathe dust.

Avoid contact with the eyes and skin.

Wash hands during breaks and at the end of the work.

· **Breathing equipment:**

If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

· **Protection of hands:**

Alkaline resistant gloves

Check the permeability prior to each renewed use of the glove.

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.

· **Material of gloves**

Natural rubber - NR

PVC gloves

· **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 safety glasses

· **Body protection:** Alkaline resistant protective clothing

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Appearance:**

**Form:** Granulate  
Beads

**Colour:** white

· **Smell:** odourless

· **Odour threshold:** no data available

· **pH-value:** ~ 13 (soln.)

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- **Change in condition**  
Melting point/Melting range: not determined  
Boiling point/Boiling range: not applicable
- **Flash point:** not applicable
- **Inflammability (solid, gaseous)** not applicable
- **Ignition temperature:** not applicable
- **Decomposition temperature:** not determined
- **Self-inflammability:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive.
- **Critical values for explosion:**  
Lower: not applicable  
Upper: not applicable
- **Oxidizing properties** not applicable
- **Vapor pressure:** not determined
- **Density:** not determined
- **Solubility in / Miscibility with**  
Water: soluble
- **Viscosity:**  
dynamic: not applicable  
kinematic: not applicable
- **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Strong exothermic reaction with acids.  
Reacts with metals forming hydrogen
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Strong acids  
Base metals
- **10.6 Hazardous decomposition products:**  
Sulphur oxides (SO<sub>x</sub>)  
Sodium oxide (Na<sub>2</sub>O)  
Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

**497-19-8 Sodium carbonate**

Oral	LD50	4090 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

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Inhalative	LC50/1 h	2.3 mg/l (rat) (LC50/2h)
<b>1310-73-2 Sodium hydroxide</b>		
Oral	LD50	2000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Corrosive
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### SECTION 12: Ecological information

· **12.1 Toxicity**

· <b>Aquatic toxicity:</b>	
<b>497-19-8 Sodium carbonate</b>	
EC50/48 h	256 mg/l (water flea (daphnia magna))
LC50/96 h	740 mg/l (gambusia affinis) 300 mg/l (bluegill (lepomis macrochirus))
<b>1310-73-2 Sodium hydroxide</b>	
EC50/48 h	> 100 mg/l (water flea (daphnia magna))
LC50/48 h	133 - 189 mg/l (leuciscus idus)
LC50/96 h	99 mg/l (bluegill (lepomis macrochirus)) 45.4 mg/l (rainbow trout (oncorhynchus mykiss))

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **Waste disposal key number:** According to local/national regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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**SECTION 14: Transport information**

· 14.1 UN-Number · ADR, IMDG, IATA	UN1823
· 14.2 UN proper shipping name · ADR · IMDG, IATA	UN 1823 SODIUM HYDROXIDE, SOLID, MIXTURE SODIUM HYDROXIDE, SOLID, MIXTURE
· 14.3 Transport hazard class(es) · ADR	
	
· Class · Label	8 (C6) Corrosive substances. 8
· IMDG, IATA	
	
· Class · Label	8 Corrosive substances. 8
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.6 Special precautions for user · Kemler Number: · EMS Number: · Segregation groups	Warning: Corrosive substances. 80 F-A,S-B Alkalis
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Excepted quantities (EQ): · Limited quantities (LQ): · Transport category: · Tunnel restriction code:	E2 1 kg 2 E
· UN "Model Regulation":	UN1823, SODIUM HYDROXIDE, SOLID, MIXTURE, 8, II

**SECTION 15: Regulatory information**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008  
The product is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

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

*Sodium hydroxide*

*Sodiumsilicate, pentahydrate*

· **Hazard statements**

*H314 Causes severe skin burns and eye damage.*

· **Precautionary statements**

*P260 Do not breathe dust/fume/gas/mist/vapours/spray.*

*P280 Wear protective gloves/protective clothing/eye protection/face protection.*

*P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*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 or doctor/physician.*

*P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.*

*P405 Store locked up.*

· **National regulations**

· **Information about limitation of use:** *Employment restrictions concerning young persons must be observed.*

· **Decree to be applied in case of technical fault:** *Directive 96/82/EC does not apply.*

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

· **Other regulations, limitations and prohibitive regulations**

*Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.*

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

## SECTION 16: Other information

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Reasons for changes:** *Changes in classification and labelling*

· **Relevant phrases**

*The(se) R- resp. H-phrase(s) are those of the ingredient(s) and do(es) not necessarily represent the classification of the preparation.*

*H290 May be corrosive to metals.*

*H302 Harmful if swallowed.*

*H312 Harmful in contact with skin.*

*H314 Causes severe skin burns and eye damage.*

*H315 Causes skin irritation.*

*H319 Causes serious eye irritation.*

*H335 May cause respiratory irritation.*

*R21/22 Harmful in contact with skin and if swallowed.*

*R34 Causes burns.*

*R35 Causes severe burns.*

*R36 Irritating to eyes.*

*R36/38 Irritating to eyes and skin.*

*R37 Irritating to respiratory system.*

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**Safety data sheet**  
according to 1907/2006/EC, Article 31

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**· Department issuing MSDS:**

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Parkstraße 29                      Fax: +49 - 2151 - 652086-9  
D-47829 Krefeld  
Germany

**· 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  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

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

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