

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

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

- **1.1 Product identifier**
- **Trade name:** SDP- $\alpha$  Gum
- **Article number:** No other identifiers
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Industrial uses.
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Mitsubishi Imaging (MPM), Inc.  
555 Theodore Fremd Avenue  
Rye, NY 10580 USA  
Phone: (914)925-3200
- **1.4 Emergency telephone number:**  
CHEMTREC  
1-800-424-9300 (US/Canada) +01 703-527-3887 (International)



## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).  
The following classifications are applicable only to OSHA (USA) regulations and not the specific CLP regulation: H334.



health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- **Information concerning particular hazards for human and environment:**  
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.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.  
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

(Contd. on page 2)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: SDP- $\alpha$  Gum

(Contd. of page 1)

- **Additional information:**

There are no other hazards not otherwise classified that have been identified.  
0 percent of the mixture consists of component(s) of unknown toxicity

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H334.

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS08

- **Signal word** Danger

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

Subtilisin

- **Hazard statements**

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H334.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

- **Precautionary statements**

The following Precautionary Statements are applicable only to the OSHA GHS regulations and not the specific CLP regulation: P362+P364.

P261 Avoid breathing mist.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

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

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

EUH208 Contains Subtilisin, 2-methylaminoethanol. May produce an allergic reaction.

- **Hazard description:**

- **WHMIS-symbols:** Not hazardous under WHMIS.

(Contd. on page 3)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

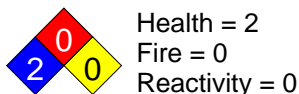
Printing date 13.05.2015

Revision: 13.05.2015

Trade name: **SDP- $\alpha$  Gum**

(Contd. of page 2)

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



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



- **HMIS Long Term Health Hazard Substances**

None of the ingredients are listed.

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

## SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

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

- **Dangerous components:**

CAS: 109-83-1 EINECS: 203-710-0 Index number: 603-080-00-0	2-methylaminoethanol ☠ C R34; ☠ Xn R21/22 ⚠ Skin Corr. 1B, H314 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312	2,5-10%
CAS: 7631-99-4 EINECS: 231-554-3	sodium nitrate ☠ Xn R22; ☠ Xi R36; 🔥 O R8 ⚠ Ox. Sol. 2, H272 ⚠ Eye Irrit. 2, H319	≤ 2,5%

- **Additional information:**

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.  
For the wording of the listed risk phrases refer to section 16.

## SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:** No special measures required.
- **After inhalation:**  
Supply fresh air.  
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- **After skin contact:**  
Immediately rinse with water.  
If skin irritation continues, consult a doctor.

(Contd. on page 4)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: SDP- $\alpha$  Gum

(Contd. of page 3)

- **After eye contact:**  
Remove contact lenses if worn, if possible.  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
Headache  
Coughing  
Asthma attacks  
Irritant to skin and mucous membranes.  
Strong irritant with the danger of severe eye injury.
- **Hazards**  
Causes serious eye damage.  
May be harmful if swallowed.  
May be harmful if inhaled.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
Medical supervision for at least 48 hours.  
In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.  
Contains Subtilisin, 2-methylaminoethanol. May produce an allergic reaction.

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information** No further relevant information available.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Ensure adequate ventilation  
Use personal protective equipment as required.
- **6.2 Environmental precautions:** Avoid release to the environment.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Send for recovery or disposal in suitable receptacles.

(Contd. on page 5)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: SDP- $\alpha$  Gum

(Contd. of page 4)

- **6.4 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.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Use only in well ventilated areas.

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

- **Information about fire - and explosion protection:** No special measures required.

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

- **Storage:**

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

Store in a cool location.

Provide ventilation for receptacles.

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

Store away from foodstuffs.

Do not store together with alkalis (caustic solutions).

Store away from oxidising agents.

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

- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

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

- **8.1 Control parameters**

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

**7664-38-2 phosphoric acid**

IOELV (EU)	Short-term value: 2 mg/m <sup>3</sup>
	Long-term value: 1 mg/m <sup>3</sup>
PEL (USA)	Long-term value: 1 mg/m <sup>3</sup>
REL (USA)	Short-term value: 3 mg/m <sup>3</sup>
	Long-term value: 1 mg/m <sup>3</sup>
TLV (USA)	Short-term value: 3 mg/m <sup>3</sup>
	Long-term value: 1 mg/m <sup>3</sup>
EL (Canada)	Short-term value: 3 mg/m <sup>3</sup>
	Long-term value: 1 mg/m <sup>3</sup>
EV (Canada)	Short-term value: 3 mg/m <sup>3</sup>
	Long-term value: 1 mg/m <sup>3</sup>

(Contd. on page 6)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: **SDP- $\alpha$  Gum**

(Contd. of page 5)

**9014-01-1 Subtilisin**

REL (USA)	Short-term value: 0,00006* mg/m <sup>3</sup> *60-min
TLV (USA)	Ceiling limit: 0,00006 mg/m <sup>3</sup> as 100% crystalline active pure enzyme
EL (Canada)	Ceiling limit: 0,00006 mg/m <sup>3</sup> S
EV (Canada)	Ceiling limit: 0,00006 mg/m <sup>3</sup>

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.

- **Respiratory protection:**

Use suitable respiratory protective device when high concentrations are present.  
Use suitable respiratory protective device when aerosol or mist is formed.  
For spills, respiratory protection may be advisable.

- **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.

- **Material of gloves**

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:**

Contact lenses should not be worn.



Safety glasses

- **Body protection:** Protective work clothing

(Contd. on page 7)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: SDP- $\alpha$  Gum

(Contd. of page 6)

- **Limitation and supervision of exposure into the environment** Avoid release to the environment.
- **Risk management measures** See Section 7 for additional information.

## SECTION 9: Physical and chemical properties

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

#### · General Information

#### · Appearance:

Form: Liquid

Colour: Opaque

· Odour: Not determined.

· Odour threshold: Not determined.

· pH-value at 20 °C (68 °F): 5,2

#### · Change in condition

Melting point/Melting range: Not Determined.

Boiling point/Boiling range: Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not applicable.

· Auto/Self-ignition temperature: Not determined.

· Decomposition temperature: Not determined.

· Self-igniting: Product is not self-igniting.

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

#### · Explosion limits:

Lower: Not determined.

Upper: Not determined.

· Vapour pressure: Not determined.

· Density at 20 °C (68 °F): 1,09 g/cm<sup>3</sup> (9,096 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

#### · Solubility in / Miscibility with

water: Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

#### · Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

· 9.2 Other information: No further relevant information available.

(Contd. on page 8)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: SDP- $\alpha$  Gum

(Contd. of page 7)

## SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**  
Reacts with strong alkali.  
Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NO<sub>x</sub>)  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)

## SECTION 11: Toxicological information

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

- **LD/LC50 values relevant for classification:**

<b>9014-01-1 Subtilisin</b>		
Oral	LD50	1800 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.
- **Sensitisation:** Sensitisation possible through inhalation.
- **Subacute to chronic toxicity:** No further relevant information available.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant  
Contains Subtilisin, 2-methylaminoethanol. May produce an allergic reaction.
- **Acute effects (acute toxicity, irritation and corrosivity):**  
May cause gastro-intestinal irritation if ingested.  
Irritating to skin.  
Irritating to eyes.
- **Repeated dose toxicity:** May cause sensitisation by inhalation.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** See Section 15.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.

(Contd. on page 9)



# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: SDP- $\alpha$  Gum

(Contd. of page 8)

- **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 (German Regulation) (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.
- **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**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.  
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. Residual materials should be treated as hazardous.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

- **14.1 UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** Not Regulated
- **14.2 UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA** Not Regulated
- **14.3 Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Not Regulated
- **14.4 Packing group**
- **DOT, ADR, IMDG, IATA** Not Regulated
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Not applicable.
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

(Contd. on page 10)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

Trade name: SDP- $\alpha$  Gum

· UN "Model Regulation":

-

(Contd. of page 9)

## SECTION 15: Regulatory information

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

- Section 355 (extremely hazardous substances):

None of the ingredients are listed.

- Section 313 (Specific toxic chemical listings):

7664-38-2 | phosphoric acid

- TSCA (Toxic Substances Control Act):

All ingredients are listed.

- Proposition 65 (California):

- Chemicals known to cause cancer:

None of the ingredients is 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.

- TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

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

None of the ingredients are listed.

- Canada

- Canadian Domestic Substances List (DSL)

All ingredients are listed.

- Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients are listed.

- Canadian Ingredient Disclosure list (limit 1%)

7664-38-2 | phosphoric acid

(Contd. on page 11)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

<b>Trade name: SDP-<math>\alpha</math> Gum</b>
--

(Contd. of page 10)

7631-99-4	sodium nitrate
-----------	----------------

- **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

- **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.
-------------------------------------

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

## SECTION 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.

- **Relevant phrases**

H272 May intensify fire; oxidiser.  
 H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H319 Causes serious eye irritation.

R21/22 Harmful in contact with skin and if swallowed.  
 R22 Harmful if swallowed.  
 R34 Causes burns.  
 R36 Irritating to eyes.  
 R8 Contact with combustible material may cause fire.

- **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  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 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)  
 HMIS: Hazardous Materials Identification System (USA)  
 WHMIS: Workplace Hazardous Materials Information System (Canada)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 Ox. Sol. 2: Oxidising Solids, Hazard Category 2  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

- **Sources**

SDS Prepared by:  
 ChemTel Inc.

(Contd. on page 12)

**Safety Data Sheet**  
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 13.05.2015

Revision: 13.05.2015

**Trade name: SDP- $\alpha$  Gum**

(Contd. of page 11)

1305 North Florida Avenue  
Tampa, Florida USA 33602-2902  
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573  
Website: [www.chemtelinc.com](http://www.chemtelinc.com)