

# Green Account 2008

## PolyPeptide Laboratories A/S



## Table of Contents

Introduction.....	3
Basic Information.....	4
Description of the company .....	5
Description of the company .....	5
Management review .....	5
Information on environmental impacts.....	10
Input .....	11
Output.....	16
Summary of self-control.....	20
Purer technology .....	21
Working Environment .....	22
Accounting policy.....	23

## **Introduction**

The Green Account 2008 has been prepared according to the Danish Ministry of Environment's Statutory order no. 1515 of 14 December 2006 on Certain Listed Companies' Responsibility to Prepare a Green Account.

Hillerød, 3<sup>rd</sup> April, 2009

Janne Ravensholt  
Environmental Manager

## Basic Information

<b>Name of Company :</b>	PolyPeptide Laboratories A/S
<b>Company Address:</b>	Herredsvejen 2, 3400 Hillerød
<b>Telephone:</b>	48207000
<b>Telefax:</b>	48207005
<b>Internet</b>	<a href="http://www.polypeptide.com">www.polypeptide.com</a>
<b>Contact Person:</b>	Environmental Manager Janne Ravensholt
<b>E-mail:</b>	jar@polypeptide.com
<b>CVR-number:</b>	1905 6201
<b>P-number:</b>	1.003.776.359
<b>Supervisory Authority:</b>	Environmental Centre Roskilde
<b>Parent Company:</b>	PolyPeptide Laboratories B.V., Holland
<b>Sector:</b>	D104 (a)(i):"Company which manufactures pharmaceutical ingredients by a chemical or biological process".
<b>Main Activity:</b>	Development and production of peptide based active ingredients for human or veterinary use in the pharmaceutical industry.
<b>Secondary Activity:</b>	None
<b>Environmental Approvals:</b>	25 January 2005 – Re-assessment of the Environmental Approval of 30 April 1996
<b>Environmental Permit:</b>	17 January 2006 - § 19 permission for buried pump well.
<b>Waste-Water Permit:</b>	19 March 2008
<b>Number of Employees:</b>	70
<b>Qualitative description of environmental conditions and consumption of resources:</b>	The essential environmental conditions of the company are assessed to be the consumption of resources including labelling required substances and water, emission of solvents into the air, waste and waste-water discharge.

## Description of the company

PolyPeptide Laboratories is located on land register No. 1asm, Hillerødholm, Hillerød Jorder in the building complex at Herredsvejen 2, Hillerød West. PolyPeptide Laboratories occupy approximately one quarter of the total building area on the land. The remaining part is occupied by other companies.

PolyPeptide Laboratories were established on 1 May 1996, as part of the PolyPeptide Laboratories Group which is one of the world's largest companies specializing in the manufacturing of peptides. PolyPeptide Laboratories Group has companies in Denmark, Sweden, USA, France and India.

PolyPeptide Laboratories Group have extensive expertise within this area and have developed and manufactured pharmaceutical peptides in large-scale for more than 40 years.

### Production

PolyPeptide Laboratories develop and manufacture peptides to toxicology and clinical studies and testing of generic products. PolyPeptide Laboratories manufacture intermediates to the pharmaceutical industry.

When manufacturing peptides the peptide chain is built up successively during a longer time. The peptides are manufactured by using two coupling principles, solid-phase technology (SSPS) and traditional synthesis in solution (LPPS)

## Management review

This management review lays down information in accordance with the obligations of the Statutory Order. That means the reasons for

- Assessment and choice of essential environmental impacts
- Environmental policy
- Environmental requirements for suppliers
- Employee involvement
- Working environment conditions
- Prevention of infringement of conditions
- Complaints
- Essential deviations compared to previous account

### **Assessment and choice of essential environmental impacts**

All use of resources and raw materials lead to an environmental impact whose size is dependant on the consumption and emission amount and the dangerousness of the used raw material / resource.

It is the overall attitude of PolyPeptide Laboratories that spill and emissions are to be minimized based on a balancing of gains and costs concerning quality, technique, finances, and working environment.

Based on the estimate of amounts and composition and with the knowledge of PolyPeptide Laboratories' activities, it is PolyPeptide Laboratories' opinion that the most essential environmental impact is the consumption of resources in the form of electricity, water, oil and raw materials and emissions of process waste water, chemical waste and air emissions from the production.

Less essential environmental parameters are the consumption of chemicals in the laboratories, discharging from the exhaust system, other waste, and sanitary waste water. It is estimated that the mentioned environment parameters would not have a significant impact on the environment so it has been decided to neglect these.

### **Level 1 company**

PolyPeptide Laboratories have been categorised as a Level 1 (out of 3) company by the Environmental Authorities. This category is given to companies at the forefront with their environmental matters.

### **Environmental Policy**

PolyPeptide Laboratories will endeavour to minimize the influence of its working processes on the environment as a natural part of its program for on-going improvements.

PolyPeptide Laboratories highly prioritise to consider the environment and safety at every new product development, which already happens when purchasing chemicals.

Furthermore, PolyPeptide Laboratories' attitude to the environment has been worded in the following environment policy.

**PolyPeptide Laboratories will:**

- ❖ ensure a responsible employee attitude to the environment and the working safety
- ❖ in action and attitude respect the Danish and EU environmental policy, the legislation and the administration hereof.
- ❖ give objective and open information to authorities and public hereunder especially neighbours, press and pressure groups.
- ❖ In the environmental work, to a high degree use our own expertise on our products and production supplemented by external advice, if needed.
- ❖ involve our employees in the environmental work
- ❖ work for a continuous development of purer technology to limit the environmental impact including
  - limit the consumption of energy and water
  - limit the amount of environmental impact of waste and emissions from the production
  - limit the consumption of raw materials which are dangerous or have an environmental impact.
- ❖ make preventive measures against unintentional spillage
- ❖ continuously develop our environmental policy and action plan
- ❖ when it is possible, encourage our suppliers to supply environmental justifiable products and services

**Environmental requirements to the suppliers**

The suppliers are chosen from their standard of quality and environmental level. PolyPeptide Laboratories appreciate and prioritize suppliers who have an environmental policy so that the environment and the people are best protected. Selection of product is assessed with regard to essential environmental and safety impacts.

**Employee involvement**

Green Account 2008 has been prepared by PolypPeptide Laboratories' environmental department. Many employees from different departments have taken part in the collection of data by filling out waste declarations, batch journals and log sheets and by reporting data in the production and financial management system. In addition to this, several employees have contributed with information for the preparation of the account.

Environmental measurements are made regularly and the employees take part in the daily environmental work.

Information on the environmental work and conditions are given on a regular basis so the employees get the necessary knowledge either through internal courses or courses from external consultants.

PolyPeptide Laboratories have been classified in the best category: 1 (of 3) by the environmental authority. This category is given to companies at the forefront with their environmental matters. This can only be done when the employees are involved and take responsibility. The employees are very conscious environmentally and it is, therefore, a natural way to work.

### **Working environment**

Working environment management has been introduced. Focus is on industrial accidents, work with dangerous chemicals and the psychological working environment.

Chemicals which can potentially affect the health of the employees are used in the production

In order to minimize the risk of effects from chemicals PolyPeptide Laboratories aim at using less dangerous raw materials and arrange the work in respect of safety and health to the greatest extent. The safety groups are involved in going over the production.

According to PolyPeptide Laboratories' accident reporting system, the following was reported in 2008:

<b>Accident reporting</b>
1 Industrial accidents
4 Near accidents
4 Risk elements

In 2008, 1 industrial accident, 4 near accidents and 4 risk elements have been registered. The accident occurred in connection with handling of chemicals, and the damage emerged in connection with spillage of chemicals. The employee suffered no permanent harm from the accident. The near accidents and risk elements all occurred in connection with work with chemicals in the production.

### **Prevention of infringement of terms**

By having preventive working environment and environment assessment of the productions, PolyPeptide Laboratories ensure the observation of current terms, laws and regulations.

PolyPeptide Laboratories have observed all the terms in the company's environmental approval and waste water permit in 2008.

Because of the systematic environmental work and continuous environmental improvements PolyPeptide Laboratories are sure to stay in the best category (level 1 of 3) which is given to companies at the forefront with their environmental matters.

### **Relation to terms in environmental approvals and permissions**

Waste water from the peptide production is led to the public sewerage system according to the permit. The waste water is neutralized before discharging so that the pH is 6 – 9. Surface water (rain water) from consolidated areas is discharged into Pøleå.

The samples are taken after the carbon filter which cleans the discharge air emission from the production's exhaust system, vacuum system and waste tanks. Internal control measurements are made by carbon tubes and subsequent analysis of the absorbed vapours. The emission measurements are made when the filter is most highly charged, meaning just before regeneration. All measurements showed that the emission limit value is observed.

This has been further described in the chapter: "Summary of internal control".

### **Complaints**

PolyPeptide Laboratories have not received any environmental complaints in connection with the production in 2008.

### **Essential deviations compared to previous account**

It is not possible to compare the environmental impact of the individual years by using key figures as for example tons of chemical waste per kilo of product. This is due to the fact that PolyPeptide Laboratories' production is based on orders and, therefore, product types and amounts vary from year to year. Furthermore, consumption of raw materials and amount of waste vary in different product types.

The consumption of organic solvents in 2008 is unchanged compared to 2007.

The generating of C/H waste has increased which is due to the increased consumption of raw materials. This does not mean that the discharge of waste water emissions has increased as well, as more waste has been generated for disposal collection.

Air emissions of group 1 and 2 usually reflect the consumption of raw materials. In this case it has been estimated that the emissions have decreased because of a change of the carbon filter

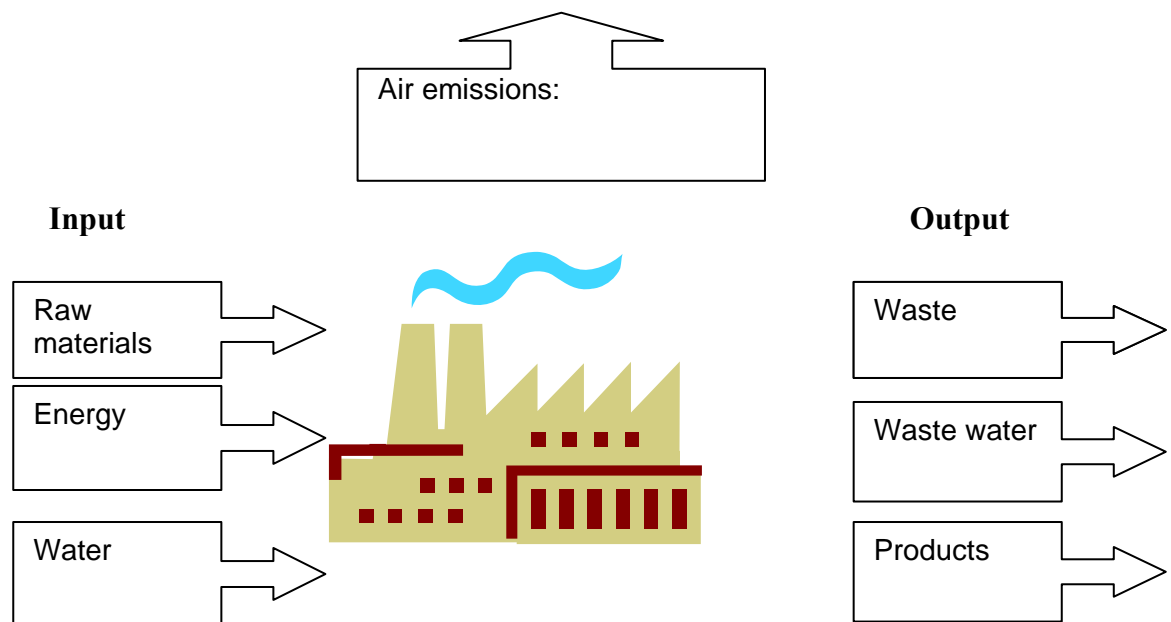
and an increased focus on the handling of volatile substances in the production. The internal control measurements show a very little emission of volatile substances.

The level of noise is evaluated to be unchanged as process equipment has not been changed.

No dust or odour emissions are produced by the company

No exceeding of environmental terms in 2008.

## Information on environmental impacts



**Table 1: Environmental performance in 2008**

To further illustrate the environmental performance the environmental parameters will be described in "A 5-year period development of environmental impacts".

### Collection and processing of data

Information to Green Account 2008 has been collected continuously during the year by filling out batch journals and log sheets and by registration in the company's production and financial management system.

Information on the consumption of raw materials etc has been collected by the production and financial management system.

The amount and type of waste are assessed continuously. Information from the waste statistics from the online-programmes is used in connection with waste disposal and collection.

The amount of waste water and pH of waste water from the production are registered daily in the SRO system. Quantity of substances in the waste water emissions is an estimate based on analyses, mass balances and production knowledge.

Consumption of energy and water is partly calculated from a distributional number based on the rented areas and partly a result of readings of consumption. This is due to the fact that PolyPeptide Laboratories are one of several tenants of the building at Herredsvejen 2 which only has separate meters for energy (electricity and district heating) and water.

The noise contribution is based on a source of noise measurement done in February 2002 and subsequent noise contribution calculations. There has not been any change in the noise emissions as processes and equipments are the same in 2008 compared to 2002. Therefore, PolyPeptide Laboratories state that the noise measurements made in 2002 are also valid in 2008.

### **A 5-year period development of environmental conditions**

In the following information is given on the different resources and environmental impacts from 2002 to 2008. Thus, it is possible to see the development in consumption of resources and environmental impacts during a 5-year period.

## **Input**

### **Raw materials and auxiliary substances**

The consumption of raw materials and auxiliary substances are divided into solvents, acids/bases, solid chemicals and amino acids and raw peptides.

Acids and bases are divided into organic and inorganic substances. The numbers are corrected for possible water content.

Solid chemicals are described as coupling reagents and auxiliary substances, softening salt to water system and other solid chemicals.

<b>Consumption of raw material in ton per year</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Solvents	80	104	136	161	159
Acids/bases	5	11	13	11	12
Amino acids and raw materials	0,3	0,5	1	1	1
Coupling reagents and ancillary substances	0,3	0,5	0,5	0,1	0.1
Softening salt to water system	3	4	4	4	4
Other solid chemicals	1	1	1	2	3

Organic solvents like alcohols, mainly ethanol and dimethylformamide, are used in the production. As it can be seen from the table solvents constitute the largest consumption. Ethanol constitutes approx. 21% and dimethylformamide 35% of the consumption of solvents.

The consumption of raw materials has not increased in 2008. But you cannot compare the consumption of raw materials with the number of products manufactured, since the production of peptide can vary from product to product and hence the amount of raw materials.

#### **Labelling required substances**

The raw materials have been classified according to the Ministry of Environment's order No. 1065 of 30 November 2000 on classification, packaging, labelling, sales and storage of chemical ingredients and products. Most of the raw materials in the production are classified. They are hazardous to people's health and to the environment or they are inflammable and have to be handled accordingly.

#### **Raw materials divided into hazard labelling**

Products labelled as hazardous constitute < 1%. Likewise products labelled as hazardous to the environment constitute < 1%. Products labelled as corrosive and causing local irritation constitute 11% equalling 24 tons. Poisonous products or products that are harmful to the health constitute 54% equalling 121 tons. Products labelled as inflammable constitute 34% equalling 77 tons; most of these products are ethanol being the most frequently used raw material.

Approx. 224 tons labelling required raw materials have been consumed in 2008. It has to be noted that approx. 10% of the raw materials have one or more labels and, therefore, they will appear in several columns.

Hazardous labelled raw materials in tons in 2008

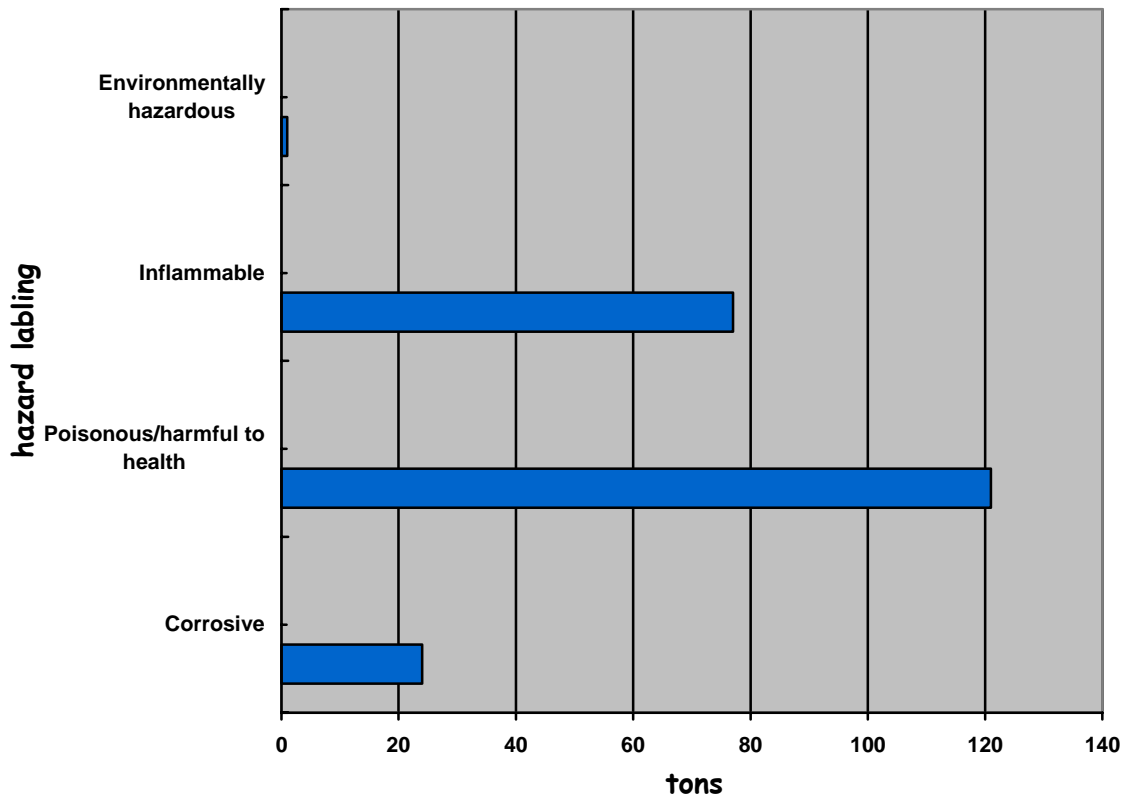


Table 2: Consumption of labelling required substances

#### Environmentally hazardous materials

Of the raw materials which form part of the above mentioned classifications 3 have been classified as hazardous to the environment. They account for less than 1% of the total consumption of raw materials. Heptane is the most used raw material, approx. 1845 kg.

#### Substances entered on the list of unwanted substances

Heptane, which is entered on the list of unwanted substances from the Danish Environmental Protection Agency, is being used. The raw material is part of the manufacturing process but is not part of the actual product.

## Energy

The consumption of energy has been divided into electricity, oil and heating consumption and has been computed as the total consumption of the company. The consumption of electricity has been assessed for the period 1/1 2008 - 31/12 2008. The consumption of oil has been assessed for the period 1/10 2007 – 30/9 2008. Heating consumption has been assessed for the period 1/5 2007 – 30/4 2008.

<b>Energy consumption for the year</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Electricity [MWh] x 10 <sup>3</sup>	1100	1200	1324	1356	1254
Heating [MWh]	1400	1700	1900	1400	1817
Oil [m <sup>3</sup> ]	15	15	16	16	15

Electricity is used for production equipment, offices, lightening and temperature control in warehouse.

The heating is district heating and is used for the heating of production rooms and offices. The oil is being used for the manufacture of process steam. Process steam is used for regenerating the carbon filter on the discharge and for heating of process equipment.

The energy consumption is calculated values from a key figure for the whole building, as Poly-Peptide Laboratories only occupy a fourth of the building complex.

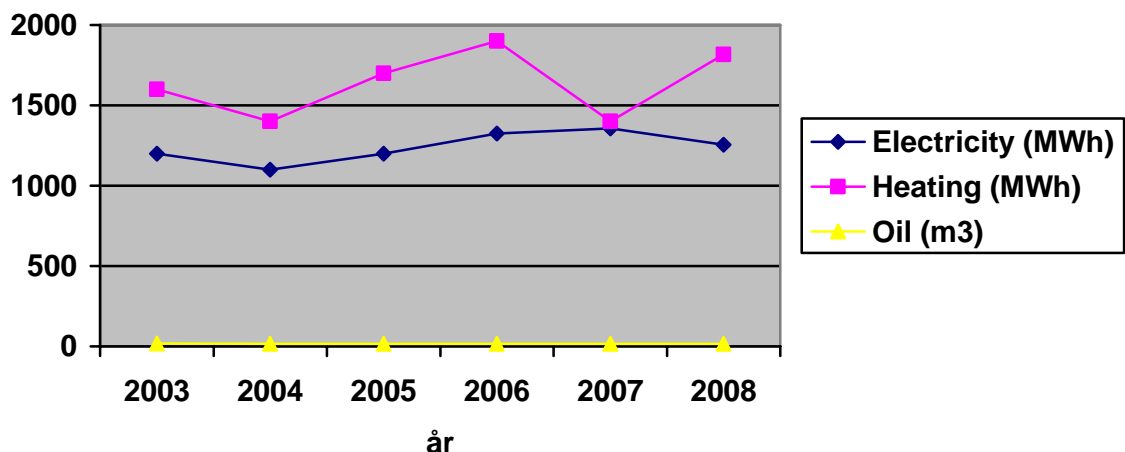


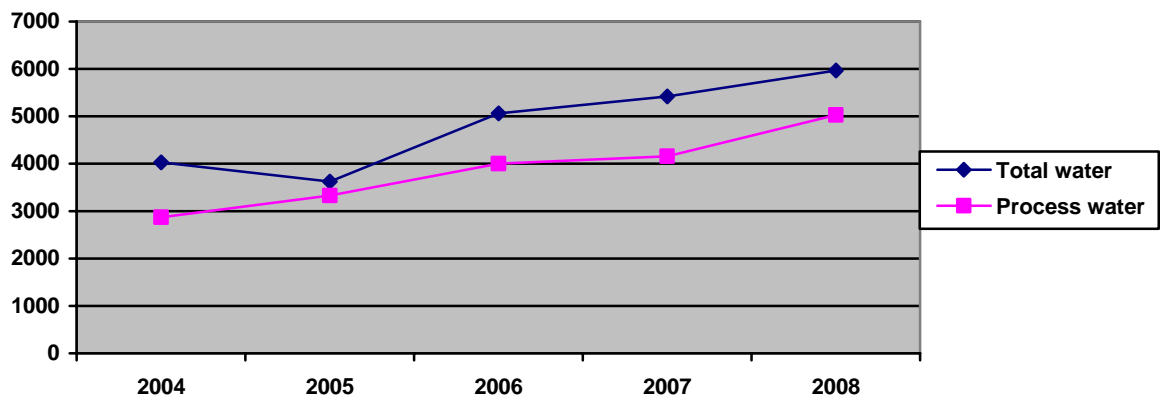
Figure 3: Energy consumption divided on energy sources

There has been used less district heating than in 2006, district heating is independent of the production.

## Water

The total water consumption has been assessed for the period 1/9 2007 – 31/8 2008. It has been calculated from the total consumption of water at Herredsvejen 2 on a scale considering number of employees and m<sup>2</sup> rent. The consumption in the process water system has been assessed for the calendar year 2007. This is water consumed in the production. The process water is part of the total water consumption.

<b>Water consumption for the year:</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Total water consumption [m <sup>3</sup> ]	4031	3628	5066	5423	5969
For process water [m <sup>3</sup> ]	2870	3325	4000	4160	5029



**Table 4: Water consumption**

More water has been consumed this year. The water is used for production of process water. The amount of process water is dependant on the type of product being manufactured.

## Output

### Waste

PolyPeptide Laboratories performs waste sorting. Waste is generated from the production and the administration. The production waste varies according to products and amounts manufactured. From the production, the following chemical waste fractions will appear, declared according to KommuneKemi's regulations.

(\* no data available)

Waste emissions for year	2004	2005	2006	2007	2008
Halogen free, type C/H [tons]	163	157	254	287	459
Halogenous, type B [tons]	18	16	12	9	12
Other waste, Z og X [tons]	1	2	1	2	2
Ethanol waste [tons]	52	138	194	111	

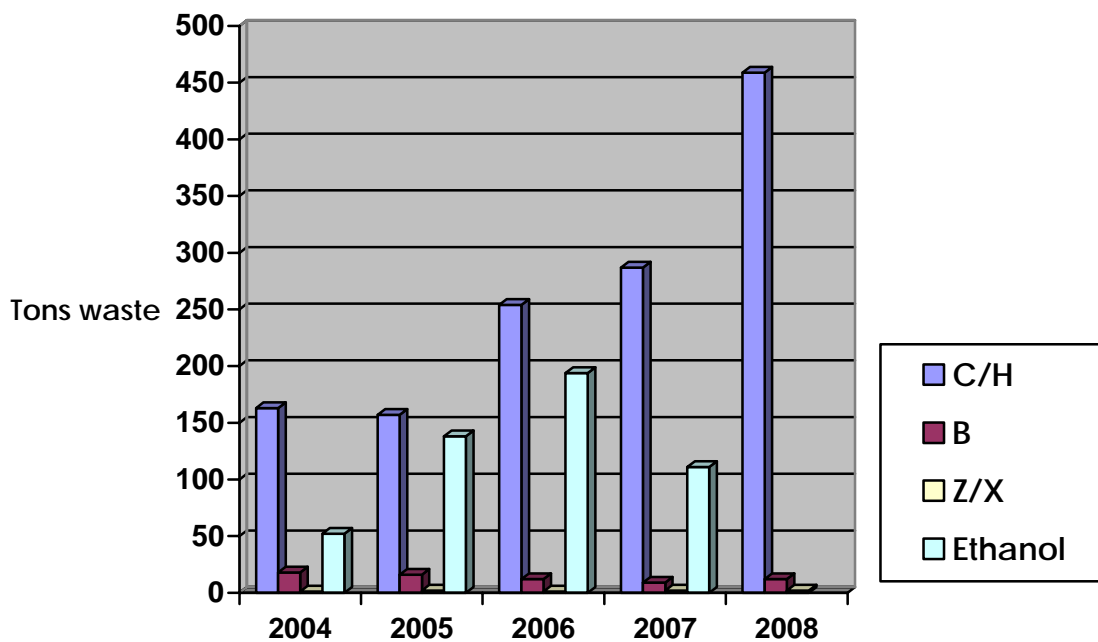


Table 5: Amounts of waste

## Waste

C/H-waste, B- Z, and X-waste are taken to Kommunekemi for disposal.

C/H-waste constitutes the main part of the waste fractions and derives mainly from the synthesis. B-waste constitutes a smaller amount of waste and is solely produced by the SSPS-synthesis.

Apart from the mentioned types of production waste, PolyPeptide Laboratories also have general waste. It consists of the following fractions: Inflammable waste, mixed waste to be sorted, drums, paper, and cardboard for recycling. Confidential papers are collected and taken to a re-use disposal plant.

The following waste types are collected by waste disposal companies and have been approved by the Municipality of H:

<b>Waste emissions for year:</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Inflammable waste [tons]	7	11	8	12	11
Mixed waste for sorting [tons]	17	20	8	8,9	23
Paper and cardboard for recycling [tons]	0,8	0,8	1,6	1,5	2.5
Iron and metal				0,7	0.2
Electrical products				2	1

## Waste water

Waste water from the productions derives from cleaning of surfaces in rooms and equipment, from process waste water from the HPLC purification and filtration. The waste water is led to a neutralization tank and neutralized to a pH 6-9 before being discharged to the public sewerage system. PolyPetide Laboratories have waste water permission from the Municipality of Hillerød with a.o. requirements on pH, quantity of ethanol in the waste water and demands for measurements of quantities of generated waste water. Neutralization and measurement of pH are done automatically before discharging. Data on quantity of waste water and pH are registered daily in the SRO-facility.

There are no specific measurements of the contents of waste water and, therefore, the emissions are assessed. Only ingredients discharged in quantities that may have a significant environmental impact have been included. There are no requirements to the waste water emissions.

<b>Waste water emissions for year:</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Salt (NaCl) [ton]	3,3	4,0	4	4	4
Ethanol [ton]	2,5	3,6	<1	<1	<1
Acetic acid [ton]	0,5	1,1	<1	<1	<1

Ethanol derives from aqueous solutions in which the concentration is so insignificant that discharge through the sewage system is the most reasonable disposal method. The figure in the above statistics has been estimated from calculations. If the amount of ethanol in the washing water is below 5%, it is discharged to the sewage. It is estimated that most of the ethanol is collected since the waste quantity to KommuneKemi is larger in 2008.

Acetic acid derives from thin aqueous solutions. The figure in the above statistics is estimated from calculations and knowledge of the production and is valid for the acetic contents. The ingredient is mainly found as its sodium salt, since the waste water is neutralized by caustic soda lye prior to discharge.

Salt derives from softening salt which is used in the production of process water.

#### **Air emissions**

PolyPeptide Laboratories' air emissions are primarily constituted of gaseous dissolvents from peptide production.

From the production and synthesis rooms in which organic solutions are used PolyPeptide Laboratories have collected the primary discharge in one lot using an active carbon filter for approx. 1 ton of active carbon. This is evaluated to be the most effective and most suitable purification method for emissions of organic solutions used in the production. The carbon filter has been changed in 2007.

<b>Air emissions for year:</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Main group 1, Class II substances [liter]	40	25	-	-	2
Main group 2, class II substances [liter]	77	100	<100	-	100
Main group 2, class III substances [liter]	218	300	<200	<200	300

All values are assessed. Main group 1, class II substances are methylene chloride. Main group 2, class II substances are primarily acetonitril, acetic acid and methyl formamide. Main group 2, class III substances are primarily ethanol, ethyl acetate and butanol.

The amount and type of raw materials are determinative for the air emission since equipment and methods are the same as in previous years.

Measurements of emissions of substances in main group 2 have been performed; this is explained in the section "summary of self-control".

### Noise

An accredited source of noise measurement and calculation of noise emissions have been performed for PolyPeptide Laboratories in February 2002. There has been no change in the noise emissions since processes and equipments are the same as in 2002. Likewise, the values of limit of noise emissions are indicated, it is assessed that the noise emission is observed.

Noise emissions:	Day	Evening	Night	Day	Evening	Night
	Limit value			Measurement		
Residential area [DB]	45	40	35	37	39	35
Industrial area [DB]	60	60	60	42	43	38

### Dust and smell

There is no dust deriving from PolyPeptide Laboratories. Chemicals and products are weighed in a specially constructed weighing room in which a dust filter has been fitted on the discharge.

There are no smell emissions deriving from PolyPeptide Laboratories.

### Soil and ground water

The production facilities are located in-doors and pose no risk for pollution of soil and ground water.

On the consolidated areas by access and exit, a possible spillage will be led to different rain water wells outside the building. The rain water wells are supplied with pumps. The pumps can be disconnected in case of spillage, so that this will stay in the rain water wells.

### Products

The amounts of finished products have not been included, since the environmental impacts are independent on how many kilos produced. The products manufactured differ in peptide composition and peptide size. The amount of intermediate products manufactured for stock is likewise varying. Thus, a small amount of finished peptide can have a larger environmental impact than a large production.

### Risk

PolyPeptide Laboratories are not affected by the Risk Statutory Act (Statutory Act No. 1666 of 14 December 2006) and are, therefore, considered as a non-risk company. In the production and warehouse facilities steps have been taken to collect spillage of chemicals without risk of environmental pollution.

PolyPeptide Laboratories have automatic surveillance with alarm indication in case of interruption of the facility for purification of air emissions and also by the facility for waste water treat-

ment. This means that an interruption will cause an alarm and be registered so that action can be taken immediately to prevent unintentional spillage to the environment.

In the case of power failure the production will stop and it will not entail spillage to the environment. An emergency generator will supply the important parts of the production and stock area.

### **Accidents**

PolyPeptide Laboratories have had no accidents in connection with dangerous goods in the environment in 2008.

## **Summary of self-control**

### **Leakage test of dust filters**

It is a requirement for discharges that may contain main group 1 substances that they have to be supplied with absolute filters with an excretion degree of min 99.97% for particles over 0,3 µm. Twice a year PolyPeptide Laboratories have all dust filters tested for leakages by an accredited company. In 2008 there has been no exceeding according to the requirements.

### **Emission measurements**

Emission measurements are done on substances in the production. These substances have been chosen in consideration of the production composition. All measurements are made on substances from main groups 1 and 2 in the air guidance.

All measurements in main group 2 are 30-100 times below emission limit value. Unfortunately, one measurement in 2008 exceeded methylen chloride (DMF) from main group 1.

### **Discharge from production**

The carbon filter has been changed in 2008. Approx 1 ton of carbon (the whole filter) has been replaced by a new filter. The carbon filter is regenerated every week by steam. During this period no production takes place.

**Measurement for the following substances in 2008:**

Date	Air emissions in mg/Nm <sup>3</sup> air	Requirement	Measured	Observed
	<b>Main Group 1</b>			
2008.02.28	Methylen chloride	5	*	√
2008.03.06	Methylen chloride	5	135	÷
2008.03.13	Methylen chloride	5	*	√
	<b>Main Group 2</b>			
2008.02.28	DMF	100	0.7	√
2008.03.06	Acetonitril	100	*	√
2008.03.13	DMF	100	*	√
2008.04.03	DMF	100	*	√
2008.05.22	Ethylacetate	300	18.8	√
2008.05.22	Heptane	300	1.7	√
2008.05.22	n-Butanol	300	*	√
2008.07.03	DMF	300	*	√
2008.07.03	Ethylacetate	300	17.6	√
2008.07.03	n-Butanol	300	*	√
2008.10.16	Acetonitril	100	*	√
2008.10.16	Ethylacetate	300	3.7	√
2008.10.16	n-Butanol	300	*	√
2008.11.06	Ethylacetat	300	254.7	√
2008.11.27	Ethanol	300	9.4	√
2008.11.27	Propane-2-ol	300	9	√

\* under the detection limit

**Sampling**

The samples were taken when the carbon filter was loaded at its maximum, i.e. the day before the regenerating of the carbon filter. Air pumps with carbon tubes for collection of air emissions are fitted after the carbon filter. Emitted substances after the carbon filter are absorbed on the carbon tube. The carbon tube is sent to an accredited analytical laboratory for measurement of the collected substances.

**Purer technology**

As a natural part of the remaining program for continuous improvements PolyPeptide Laboratories work on minimizing the impact of working processes on the environment

PolyPeptide Laboratories highly prioritize to consider the environment and safety in connection with any new product development.

Wherever it is possible in the production the least dangerous chemical substance will be chosen. Already in the development phase of the product the most dangerous chemical substances will

be taken away. In many productions we have phased out the consumption of substances in main group 1, class II; therefore there has been no air emission from this main group in 2008.

On the background of continuous development and purer technology PolyPeptide Laboratories has developed a method to significantly reduce the amount of organic solvents. Thereby both the consumption of raw materials, waste emission and air emission are reduced.

## **Working Environment**

### **Working Environment Management**

PolyPeptide Laboratories are working according to the guidelines in the Working Environment Management System ISO 18001.

### **Working environment policy**

We will

- ❖ Continuously be an attractive work place that constantly values having and further developing a safe and healthy physical as well as psychological working environment through collaboration and communication
- ❖ Work on maintaining and improving the working environmental management system
- ❖ Communicate with our employees as well as the outside world about the conditions for the working environment.
- ❖ Arrange the work in such a way that it takes the employees' safety and health into consideration
- ❖ Continuously explore the possibility for improving the working environment by actively undertaking the functions that can contribute to this, through an active commitment towards bringing down the number of accidents
- ❖ Make the working environment a natural topic at the yearly employee development dialogue
- ❖ Maintain and help ill and weak employees in the labour market
- ❖ Offer activities beneficial to the health.

### **Working Environment improvements**

PolyPeptide Laboratories observe the written policies for working environment. Improvements have been made in accordance with these policies.

Contingency plans on accidents, fire and crisis preparedness have been prepared also covering the psychological working environment. We have written policies on stress, abuse of narcotics, smoking, crisis, critical illnesses, absence, and for care and pregnancy .

PolyPeptide Laboratories have focus on working accidents and work with dangerous chemicals as well as the psychological working environment.

In 2008, 1 industrial accident, 4 near accidents and 4 risk elements have been registered.

### **Chemical effects**

In the company's production some chemicals are used which potentially can affect the employees' health. To minimize the risk of effects from chemicals PolyPeptide Laboratories aim at using the least dangerous raw materials and arrange the work so consideration is taken to safety and health to the greatest extent.

PolyPeptide Laboratories has procured a chemical database for registration of dangerous substances. Among other purposes, this is for preparation of employer manuals on chemicals, which is for the use of all employees in PolyPeptide Laboratories .

## **Accounting policy**

Data have been registered for 2008. The registration of data is done by key employees at PolyPeptide Laboratories. The registration is continuously done in connection with PolyPeptide Laboratories' daily operation.

As previous green accounts for PolyPeptide Laboratories, Green Account 2008 has not been revised.