

## 1. Identification of the Substance and the Company

### **EXPANCEL® Microspheres: 093 DU 120**

*Use of the substance:* Blowing agent

Expancel  
Box 13000  
850 13 SUNDSVALL  
Sweden  
Telephone: +46-60 134000  
Telefax: +46-60 569518

For US customers:  
Expancel, USA  
Telephone: 770-813-9126  
Telefax: 770-813-8639

Emergency tel no: +46-8 337043

Emergency tel no: Chemtel 1-800-255-3924

*Email address of competent person responsible for the SDS:*  
info.expancel@akzonobel.com

## 2. Hazards Identification

The product is not classified as dangerous to health or environment according to directive 1999/45/EG and its amendments.

When stored in closed containers:

- the concentration of residual monomer in the vapor phase may reach such a level that inhalation is harmful.
- a flammable atmosphere within the containers can develop.

EXPANCEL DU can cause a dusty atmosphere / dustiness.

Observe that EXPANCEL DU must be properly handled due to risk of static electricity and dust explosion hazard.

## 3. Composition / Information on Ingredients

*Description:* Acrylic copolymer encapsulating a blowing agent.

Substance	CAS no	EINECS No	Content	Classification	Comments
<i>Blowing agent</i>				F+; R12 Xn; R65	
- Isopentane	78-78-4	201-142-8	10-30 w-%	R66 R67 N; R51/53	
Copolymer	38742-70-0		>70 w-%		

Product name: **Expancel® 093 DU 120**  
Revision: 10-11-2010  
Date of issue: 06-11-1998  
Pages: **1 (5)**



## 4. First-Aid Measures

### First aid

<i>Inhalation:</i>	Fresh air.
<i>Skin contact:</i>	Wash with soap and water.
<i>Eye contact:</i>	Flush thoroughly with water.
<i>Ingestion:</i>	Drink a glass of water.

**Medical attention** Professional assistance by a doctor is not needed.

## 5. Fire-fighting Measures

Extinguishing media: Foam or water-spray is recommended.  
Containers close to fire should be transferred to a safe place.  
Toxic fumes may occur as a decomposition product in case of fire.

## 6. Accidental Release Measures

If material is spilled, eliminate all sources of ignition and prevent spark formation as a result of static electricity. Use respiratory mask when handling the product if dusting cannot be avoided. When handling the material, use rubber gloves to prevent skin contact. Sweep up material.

## 7. Handling and Storage

**HANDLING:** Open container in a well ventilated area. Allow enough time to permit escape of harmful and flammable vapors before emptying. Maintain adequate ventilation when preparing mixtures and during the expansion process. The release of blowing agent is increased during expansion. Use grounded electrical equipment.

**STORAGE:** Store in a well ventilated area at maximum 50°C. EXPANCEL DU expands at elevated temperatures.

## 8. Exposure Controls / Personal Protection

Use a respiratory mask when dusting cannot be avoided. Use protective rubber gloves when handling the product.

The release of residual monomers and propellant to the air during expansion of the product may need to be checked depending on content of product and existing ventilation.



Substance	CAS no	Content	Permissible Exposure limits
- Acrylonitrile	107-13-1	< 0,04 w-%	2 ppm
- Methacrylonitrile	126-98-7	< 0,04 w-%	1 ppm, 2.7 mg/m <sup>3</sup> (*)
- Isopentane	78-78-4	10–30 w-%	600 ppm
- Total dust			15 mg/m <sup>3</sup>

(\*) Recommended limits according to ACGIH (The American Conference of Governmental Industrial Hygienists).

## 9. Physical and Chemical Properties

<i>Appearance:</i>	Off-white dry powder.
<i>Odor:</i>	No particular odor.
<i>Particle size:</i>	2 – 60 µm
<i>pH:</i>	~10, when dispersed in water
<i>Explosive properties:</i>	Dust explosion hazard. $K_{st} = 240$ [bar*m/s] MIE (Minimum Ignition Energy) = < 3 [mJ] MOC (Minimal Oxygen Concentration) = 14 vol-% Lowest explosion concentration 40 g/m <sup>3</sup> air
<i>Auto ignition temperature:</i>	170°C
<i>Density [kg/m<sup>3</sup>]:</i>	1000 – 1200
<i>Solubility in water:</i>	Insoluble
<i>Soluble in:</i>	Dimethylacetamide, Dimethylformamide
<i>Volatile organic compound (VOC):</i>	appr 10 – 30 %
<i>Organic compounds:</i>	appr 100 %

## 10. Stability and Reactivity

The product is stable and no hazardous reaction will occur.

If the product is stored at temperatures above 50°C the release of blowing agent increases with a risk of explosive air-mixtures.



## 11. Toxicological Information

### Health effects:

<i>Inhalation:</i>	Dry microspheres are dusty and may cause transient irritation in the respiratory organ. When stored in closed containers the concentration of monomers in the vapor phase may reach such a level that inhalation is harmful.
<i>Skin contact:</i>	May cause dryness.
<i>Eye contact:</i>	May cause irritation.
<i>Ingestion:</i>	No acute health effect anticipated due to chemical composition.

## 12. Ecological Information

- Wassergefährdungsklasse: The material constitute a slight danger to water (WGK = 1) according to VwVwS from 17.05.1999, Kenn-Nr 766 (Kunststoff).
- The product is not biologically decomposable.

## 13. Disposal Considerations

The material can be incinerated.  
Follow local regulations concerning disposal.

## 14. Transport Information

<i>UN No:</i>	2211 Polymeric beads, expandable	
<i>IMDG:</i>	Class 9, pkg III	EmS No: F-A S-I
<i>ADR/RID:</i>	Class 9, pkg III	
<i>IATA-DGR:</i>	Class 9, pkg III	

## 15. Regulatory Information

*Labeling:* R18: In use, may form flammable/explosive vapor-air mixture.

The present components are listed in the following chemical inventories:

<i>USA:</i>	TSCA
<i>Europe:</i>	EINECS
<i>Australia:</i>	AICS
<i>Canada:</i>	DSL
<i>Japan:</i>	MITI/ENCS
<i>Korea:</i>	ECL
<i>China:</i>	SEPA/IECSC
<i>The Philippines:</i>	PICCS
<i>Switzerland:</i>	SWISS



## 16. Other Information

The product is not classified as dangerous to environment (N) or health (X) as the isopentane is encapsulated in the product. A person handling the product will not come in contact with it and if spilled it will not escape into the environment.

### Explanation of the risk phrases under item 3

- R12: Extremely flammable  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R65: Harmful: may cause lung damage if swallowed.  
R66: Repeated exposure may cause skin dryness or cracking.  
R67: Vapors may cause drowsiness and dizziness.

Changes made in this edition have been indicated by a line in the left margin.

This SDS is in accordance with regulation 1907/2006/EC.

**EXPANCEL®** is a registered trademark of AkzoNobel in a number of territories in the world.

No warranty, expressed or implied is given by Expancel regarding the accuracy of these data or the results to be obtained from the use thereof. Expancel assumes no responsibility for personnel injury or property damage to vendees, users or third parties caused by the product. Such vendees or users assume all risks associated with the use of the material.

Product name: **Expancel® 093 DU 120**  
Revision: 10-11-2010  
Date of issue: 06-11-1998  
Pages: **5 (5)**