

SAFETY DATA SHEET

1. Identification of the Substance and the Company

EXPANCEL® Microspheres: 009 DET 80 d15

Use of the substance: Light-weight filler

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2. Hazards Identification

The product is classified as highly flammable.

EXPANCEL DET can cause a dusty atmosphere / dustiness.

Observe that EXPANCEL DET 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> - Isopentane	78-78-4	201-142-8	15–25 w-%	F+; R12 Xn; R65 R66 R67 N; R51/53	
Reaction product with Silica	68611-44-9	271-893-4	10–20 w-%		
Copolymer	38742-70-0		>70 w-%		

4. First-Aid Measures

First aid:

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

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

5. Fire-fighting Measures

Extinguishing media: Foam, CO₂ or waterspray 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. Sweep up material.

7. Handling and Storage

HANDLING: Use adequate ventilation to control airborne particles. Keep containers closed as far as possible. When emptying containers of EXPANCEL DET special precautions should be taken, see handling instructions. Eliminate all sources of ignition where EXPANCEL DET is handled. Use grounded electrical equipment.

STORAGE: Store in a dry area at temperatures below 50°C. Eliminate all sources of ignition where EXPANCEL DET is stored.

8. Exposure Controls / Personal Protection

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

Substance	CAS no	Content	Permissible Exposure limits
- Acrylonitrile	107-13-1	< 0,01 w-%	2 ppm
- Methacrylonitrile	126-98-7	< 0,01 w-%	1 ppm, 2.7 mg/m ³ (*)
- Isopentane	78-78-4	15–25 w-%	600 ppm
- Total dust			15 mg/m ³

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

9. Physical and Chemical Properties

<i>Appearance:</i>	White dry powder.
<i>Odour:</i>	No particular odour.
<i>Particle size:</i>	5 – 200 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 ³ air
<i>Auto ignition temperature:</i>	170°C
<i>Density [kg/m³]:</i>	10 – 20
<i>Solubility in water:</i>	Insoluble
<i>Soluble in:</i>	Dimethylacetamide, Dimethylformamide
<i>Volatile organic compound (VOC):</i>	appr 20 %
<i>Organic compounds:</i>	appr 90 %

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 vapour 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

ADR, RID, IMDG, IATA
Class 4.1, Flammable solid, organic n.o.s (contains butane/pentane)
UN 1325, pkg III

15. Regulatory Information

Classification: F; Highly flammable

Labelling:

- R11: Highly flammable

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 2

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:	Vapours 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.

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