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BLOW CHEM PVT. LTD.

TECHNICAL DATA SHEET

MICROCELL TSH

MICROCELL TSH is a nitrogen releasing chemical blowing agent for expanded rubbers processed in the temperature range of 120°C – 160°C

PRODUCT INFORMATION

MAIN CONSTITUENT	p-Toluenesulfonylhydrazide CAS Number {1576-35-8} C ₇ H ₁₀ N ₂ O ₂ S MOL WT.=186
GAS CONTENT	MAINLY NITROGEN & STEAM
APPEARANCE	FREE FLOWING CREAM COLOURED POWDER
MOISTURE CONTENT	0.2 % W/W MAX.
SOLUBILITY	PRACTICALLY INSOLUBLE IN WATER. SOLUBLE IN METHANOL, ETHANOL, ACID AND ALKALIES.
DECOMPOSITION TEMP. (OPEN CAPILLARY TUBE METHOD)	107 ± 2°C
GAS EVALUATION	110 ± 5 ml/gm @ S.T.P.
SPECIFIC GRAVITY	1.65 @ 25°C

SPECIAL FEATURES

- ☞ MICROCELL TSH melts at 100°C and decomposes at 110°C. It does not give adequate rate of gas evolution below 140°C when decomposes thermally. Useful quantities of gas can be generated at temperature as low as 120°C while activating compounds as urea, thiourea, certain, amines and if metal containing compounds are present. It decomposes to give a solid residue of a disulphide, a sulphide sulphone and a gaseous mixture of nitrogen and steam.
- ☞ MICROCELL TSH does not dissolve in oils and plasticisers, generally used in compounding. Due to its fine particles. MICROCELL TSH can be dispersed during processing if it includes a milling operation.
- ☞ MICROCELL TSH can also be pre-mixed with appropriate oil & Plasticizer.
- ☞ When MICROCELL TSH is incorporated in to stock by not processing methods involving temperature above 100°C, it loses its efficiency due to pre-decomposition.
- ☞ MICROCELL TSH produces microcellular sponge which does not get discoloured in curing or on exposure to light.
- ☞ MICROCELL TSH does not impart any objectionable odour to rubber sponge compounds.
- ☞ MICROCELL TSH causes a marked activation of cure system, hence addition of secondary activation accelerator is not needed

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APPLICATION

- ☞ The production of sponge rubber and slipper soles.
- ☞ The foaming of unsaturated polyesters.
- ☞ The expansion of most type of rubber and rubber cloth laminates.
- ☞ Low temperature vinyl applications where decomposition is desired prior to complete fusion of PVC.
- ☞ Production of epoxy foam where 4,4' - Oxybis (benzenesulfonylhydrazide) cannot be used because of its higher decomposition temperature.

When MICROCELL TSH is incorporated into unsaturated polyester systems, it reacts exothermically with other components of the system to give cross linked polyester foams.

DOSAGE

- ☞ 1.5 – 6.0 PHR depending on the polymers used & the extent to expansion required.

PACKING

- ☞ MICROCELL TSH is packed in 25 Kgs. HDPE bags/ Fiber drums/ UN approved corrugated paper cartons with a polythene liner inside.

STORAGE

Its storage stability is good enough provided it is stored.

- ☞ In a cool and dry place.
- ☞ Away from localized sources of heat.
- ☞ Away from strong alkalis & acids with which it reacts.

FLAMMABILITY

- ☞ MICROCELL TSH is non-flammable and does not support combustion. Decomposition of MICROCELL TSH on heating causes evolution of fumes resembling smoke. In case of Fire, use water.

TOXICITY

- ☞ MICROCELL TSH is of low toxicity by skin contact and is mildly irritating to the eyes, its decomposition residues are also of low toxicity.

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HANDLING

☞ MICROCELL TSH is substantially free from handling problems, care should be taken to prevent its contact with skin & eyes. Avoid creating dusty conditions because of possibility of respiratory.

OUR STATEMENT

☞ The statements made in the above documents are correct to the best of our knowledge and belief. S. S. Blow Chem Pvt. Ltd., gives no warranty as to their accuracy and will not be responsible for any loss or expenses arising from use of these products

OUR OFFICE

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