

## UNICELL-H Series

- p-Toluenesulfonylhydrazide
- Specially designed foaming agents for rubbers and plastics

### Description

UNICELL-H series, the trade name of p-Toluenesulfonylhydrazide, produces non-discoloring and low odored cellular foams. UNICELL-H series is designed for regular opened/closed rubber foams and fine cellular structures. It has excellent performance without activators at conventional curing temperature.

UNICELL-H series is recommended for the less shrinkable materials when exposed to light or heat.

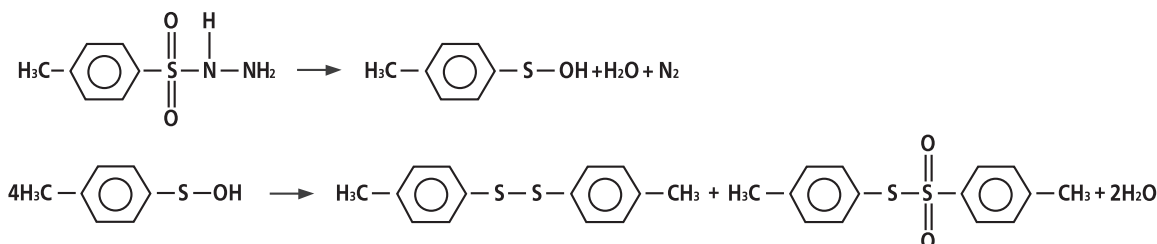
UNICELL-H series also has commercial applications for thermosetting polyesters and PVC sealants.

### Properties of UNICELL-H series

Item	Specification	
Grade Name	H	H (HC)
Chemical Name	p-Toluenesulfonylhydrazide	
Appearance	Fine White Powder	
Decomposition Temperature (°C)	143~147	143~147
Gas Volume (ml/g, at 25°C)	105~115	95~105
Average Particle Size (μm)	5.6~6.0	
Moisture Content (%)	0.5 max.	
Chemical Formula	H <sub>3</sub> C - φ - SO <sub>2</sub> - NH - NH <sub>2</sub>	
Specific Gravity	1.42	
Molecular Weight	186.23	
Solubility (g sample/100g solvent, at 20°C)	Soluble in Water : 0.49 Tolence : 0.35 Alcohol : 5.1 DMSO : fairly soluble	
CAS No.	1576 - 35 - 8	

### Decomposition of UNICELL-H series

A Possible decomposition mechanism of UNICELL-H series has been suggested as follows;



UNICELL-H releases N<sub>2</sub>, H<sub>2</sub>O and p-toluenesulfonic acid as an unstable intermediate, when heated. The unstable p-toluene sulfonic acid turns into ditolyl disulfide and tolyl paratoluene thiosulfonate immediately. The sulfur containing decomposition residues can function as curing agents in rubber compositions.