

# MATERIAL SAFETY DATA SHEET

## HYDROGEN

|  |   |  |
|--|---|--|
| <b>NAME (S)</b>  | HYDROGEN  |  |
| <b>CHEMICAL FORMULA</b>  | H <sub>2</sub>  |  |
| <b>PHYSICAL PROPERTIES</b>   | <b>OTHER CHARACTERISTICS</b>  |  |
| Boiling Point ° C  | -253  | Colourless, odourless gas. Can be ignited by electrostatic sparks, specially during filling, venting or leakage. The hazard of hydrogen lies in its extremely wide explosive limits and the low energy required for ignition. When released from high pressure to atmospheric pressure it catches fire without ignition. |
| Flash Point ° C  | flammable gas   |  |
| Autoignition temp. ° C   | 565   |  |
| Vapour density (air = 1)   | 0.069   |  |
| Solubility in water  | Nil   |  |
| Explosive limits in air % vol.   | 4.74  |  |
| <b>TLV/MAC VALUE</b>   | PPM<br>mg/M <sup>3</sup>  | ---<br>---   |
| <b>HAZARDS</b>   | <b>PRECAUTIONS</b>  | <b>EXTINGUISHING AGENT(S)</b>  |
| <b>Fire:</b> Highly inflammable.   | ---   | Dry Chemical Powder  |
| <b>Explosion:</b> Severe hazard when exposed to heat or flame.   | Gas test with Explosimeter suitable for H <sub>2</sub>  |  |
| <b>SYMPTOMS</b>  | <b>PRECAUTIONS</b>  | <b>FIRST AID</b>   |
| <b>Skin :</b> ---  | ---   | ---  |
| <b>Eyes :</b> ---  | ---   | ---  |
| <b>Inhalation:</b> In very high concentration causes choking sensation (asphyxia) and if continued - unconsciousness | Provide good ventilation  | ---  |
| <b>Swallowing:</b>   |   |  |
| <b>DISPOSAL</b>  | <b>STORAGE</b>  | <b>PACKING</b>   |
| Ventilate  | Store in a cool fire-proof ventilated place, separated from other cylinders, preferably in open air | Cylinders, 6M <sup>3</sup>   |
| <b>ADDITIONAL INFORMATION:</b>   | Ventilate at highest point  |  |

*Chemistry for every day Living*