

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 397.00

Revision Date: July 13, 2011

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### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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#### Hydrogen Gas

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

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### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

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Hydrogen gas

CAS#: 1333-74-0

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### SECTION 3 — HAZARDS IDENTIFICATION

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Colorless gas. Odorless.  
Asphyxiation if in high concentrations.  
Extremely flammable gas; severe fire hazard.

#### FLINN AT-A-GLANCE

Health-0

Flammability-3

Reactivity-0

Exposure-0

Storage-0

0 is low hazard, 3 is high hazard

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### SECTION 4 — FIRST AID MEASURES

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Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

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### SECTION 5 — FIRE FIGHTING MEASURES

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Extremely flammable gas; severe fire hazard.  
Gas cylinder or lecture bottle contents under pressure.

**Fire Fighting Instructions:** Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

H-0

F-4

R-0

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### SECTION 6 — ACCIDENTAL RELEASE MEASURES

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Remove all ignition sources. Ventilate area of gas leak or remove lecture bottle or gas cylinder to a fume hood or outside.

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### SECTION 7 — HANDLING AND STORAGE

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Store with the bottled gases in a secure area.

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### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and a chemical-resistant apron.

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Colorless, odorless gas.

Solubility: Slightly soluble in water and alcohol.

Formula: H<sub>2</sub>

Formula weight: 2.02

Boiling point: -252 °C

Melting point: -259.2 °C

Specific gravity: 0.0695

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with oxidizers, heat, sparks, and open flame.

Shelf life: Indefinite, if stored properly.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Nausea, dizziness, headache.

Chronic effects: N.A.

Target organs: N.A.

ORL-RAT LD<sub>50</sub>: N.A.IHL-RAT LC<sub>50</sub>: N.A.SKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply, before proceeding.

One option is to completely empty cylinder in one operating fume hood or outdoors. Avoid flames and sparks. Dispose of empty cylinder in trash, if non refillable.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Hydrogen, compressed

Hazard class: 2.1, Flammable gas

UN number: UN1049

N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (215-605-7), RCRA code D001.

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**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**