

# SAFETY DATA SHEET



## SPIN-AID® HERBICIDE

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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### Product identifier

**Trade name** SPIN-AID® HERBICIDE

**Product code (UVP)** 05933897

**SDS Number** 102000000589

**EPA Registration No.** 264-616

#### Relevant identified uses of the substance or mixture and uses advised against

**Use** Herbicide

**Restrictions on use** See product label for restrictions.

#### Information on supplier

**Supplier** Bayer CropScience  
2 T.W. Alexander Drive  
Research Triangle PK, NC 27709  
United States

**Responsible Department** Email: SDSINFO.BCS-NA@bayer.com

#### Emergency telephone no.

**Emergency Telephone Number (24hr/ 7 days)** 1-800-334-7577

**Product Information Telephone Number** 1-866-99BAYER (1-866-992-2937)

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### SECTION 2: HAZARDS IDENTIFICATION

#### Classification in accordance with regulation HCS 29CFR §1910.1200

Carcinogenicity : Category 2

Aspiration hazard : Category 1

Flammable liquids : Category 4



**Signal word:** Danger

#### Hazard statements

May be fatal if swallowed and enters airways.

Suspected of causing cancer.

Combustible liquid

#### Precautionary statements

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Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Keep away from open flames/hot surfaces. - No smoking.

IF exposed or concerned: Get medical advice/ attention.

IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.

Do NOT induce vomiting.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Store locked up.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local regulation.

## Other hazards

No other hazards known.

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Phenmedipham	13684-63-4	15.9
Isophorone	78-59-1	60.5
Nonylphenol ethoxylate, branched	127087-87-0	10.6
Solvent Naphtha (petroleum), light aromatic	64742-95-6	3.4
1,2,4-Trimethylbenzene	95-63-6	1.1

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## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

#### General advice

When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

#### Inhalation

Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.

#### Skin contact

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

#### Eye contact

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.

#### Ingestion

Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

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## Most important symptoms and effects, both acute and delayed

**Symptoms** The following symptoms may occur:, Respiratory disorder, Narcosis, Headache, Salivation, Ataxia, Weakness, Tremors, Nausea

## Indication of any immediate medical attention and special treatment needed

**Risks** Risk of respiratory disorders. This product, although being a carbamate, is NOT a cholinesterase inhibitor. Risk of pneumonia.

**Treatment** Treat symptomatically. In the event of a mouthful or more being ingested, the following measures should be considered: In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Forced alkaline diuresis and hemodialysis may be considered. Carefully monitor the kidney functions. Carefully monitor the respiratory functions.

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## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable** High volume water jet

**Special hazards arising from the substance or mixture** In the event of fire the following may be released:, Nitrogen oxides (NOx), Carbon monoxide (CO)

### Advice for firefighters

**Special protective equipment for fire-fighters** Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

**Further information** Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

**Flash point** 74 °C

**Autoignition temperature** 455 °C / 851 °F

**Lower explosion limit** 0.8 %(V)  
The data refer to the solvent.

**Upper explosion limit** 3.8 %(V)  
The data refer to the solvent.

**Explosivity** Not explosive  
92/69/EEC, A.14 / OECD 113

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Precautions** Remove all sources of ignition. Use personal protective equipment. Keep unauthorized people away.

### Methods and materials for containment and cleaning up

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

**Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

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## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Use only in area provided with appropriate exhaust ventilation. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.

**Hygiene measures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.  
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

### Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs. Do not store together with oxidizing agents.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Phenmedipham	13684-63-4	1.5 mg/m3 (TWA)		OES BCS*
Isophorone	78-59-1	5 ppm (CEILING)	02 2012	ACGIH
Isophorone	78-59-1	23 mg/m3/4 ppm (REL)	2010	NIOSH
Isophorone	78-59-1	140 mg/m3/25 ppm (PEL)	02 2006	OSHA Z1
Isophorone	78-59-1	23 mg/m3/4 ppm (TWA)	1989	OSHA Z1A
Isophorone	78-59-1	23 mg/m3/4 ppm (TWA)	06 2008	TN OEL
Isophorone	78-59-1	23ug/m3 (AN ESL)	07 2011	TX ESL
Isophorone	78-59-1	230ug/m3 (ST ESL)	07 2011	TX ESL
Isophorone	78-59-1	4ppb (AN ESL)	07 2011	TX ESL
Isophorone	78-59-1	40ppb (ST ESL)	07 2011	TX ESL
Isophorone	78-59-1	23 mg/m3/4 ppm (TWA PEL)	08 2010	US CA OEL
Nonylphenol ethoxylate, branched	127087-87-0	600ug/m3 (ST ESL)	07 2011	TX ESL
Nonylphenol ethoxylate, branched	127087-87-0	60ug/m3 (AN ESL)	07 2011	TX ESL
1,2,4-Trimethylbenzene	95-63-6	25 ppm (TWA)	02 2012	ACGIH
1,2,4-Trimethylbenzene	95-63-6	125 mg/m3/25 ppm (REL)	2010	NIOSH
1,2,4-Trimethylbenzene	95-63-6	125 mg/m3/25 ppm (TWA)	1989	OSHA Z1A
1,2,4-Trimethylbenzene	95-63-6	125 mg/m3/25 ppm (TWA)	06 2008	TN OEL
1,2,4-Trimethylbenzene	95-63-6	25ppb (AN ESL)	07 2011	TX ESL
1,2,4-Trimethylbenzene	95-63-6	125ug/m3 (AN ESL)	07 2011	TX ESL
1,2,4-Trimethylbenzene	95-63-6	700ug/m3 (ST ESL)	02 2013	TX ESL
1,2,4-Trimethylbenzene	95-63-6	140ppb (ST ESL)	02 2013	TX ESL
1,2,4-Trimethylbenzene	95-63-6	125 mg/m3/25 ppm (TWA PEL)	08 2010	US CA OEL
Solvent Naphtha (petroleum), light aromatic	64742-95-6	1250ug/m3 (ST ESL)	07 2011	TX ESL
Solvent Naphtha (petroleum), light aromatic	64742-95-6	25ppb (AN ESL)	07 2011	TX ESL

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Solvent Naphtha (petroleum), light aromatic	64742-95-6	250ppb (ST ESL)	07 2011	TX ESL
Solvent Naphtha (petroleum), light aromatic	64742-95-6	125ug/m3 (AN ESL)	07 2011	TX ESL

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

## Exposure controls

### Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

**Respiratory protection** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**Hand protection** Chemical resistant nitrile rubber gloves

**Eye protection** Splash goggles  
or  
Face-shield

**Skin and body protection** Wear long-sleeved shirt and long pants and shoes plus socks.

**General protective measures** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.  
Keep and wash PPE separately from other laundry.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	yellow to brown
<b>Physical State</b>	Liquid clear
<b>Odor</b>	sweet
<b>Odour Threshold</b>	no data available
<b>pH</b>	2.7 - 4.0 at 10 % (23 °C) (deionized water)
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	ca. 0.99 g/cm <sup>3</sup> at 20 °C
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	no data available
<b>Melting / Freezing Point</b>	no data available
<b>Water solubility</b>	emulsifiable
<b>Minimum Ignition Energy</b>	not applicable
<b>Decomposition temperature</b>	no data available

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<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	ca. 3.61 mPa.s
<b>Flash point</b>	74 °C
<b>Autoignition temperature</b>	455 °C / 851 °F
<b>Lower explosion limit</b>	0.8 %(V) The data refer to the solvent.
<b>Upper explosion limit</b>	3.8 %(V) The data refer to the solvent.
<b>Explosivity</b>	Not explosive 92/69/EEC, A.14 / OECD 113

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## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

<b>Thermal decomposition</b>	no data available
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>Conditions to avoid</b>	Heat, flames and sparks. Elevated temperatures
<b>Incompatible materials</b>	Oxidizing agents
<b>Hazardous decomposition products</b>	Thermal decomposition can lead to release of: Carbon dioxide (CO <sub>2</sub> ) Carbon monoxide Nitrogen oxides (NO <sub>x</sub> )

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## SECTION 11: TOXICOLOGICAL INFORMATION

<b>Exposure routes</b>	Vapor/mist inhalation, Skin contact, Ingestion, Eye contact
<b>Immediate Effects</b>	
<b>Eye</b>	Moderate eye irritation.
<b>Skin</b>	Corrosive Causes burns. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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**Ingestion** Harmful if swallowed. Ingestion of significant amounts of liquid may cause increased salivation, general ataxia (confusion and lack of muscular coordination), weakness and tremors.

**Inhalation** High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects. Harmful if inhaled.

## Information on toxicological effects

**Acute oral toxicity** LD50 (rat) 4,000 mg/kg

**Acute inhalation toxicity** LC50 (rat) 5.5 mg/l  
Exposure time: 4 h  
Determined in the form of liquid aerosol.

LC50 (rat) 22 mg/l  
Exposure time: 1 h  
Determined in the form of liquid aerosol.  
Extrapolated from the 4 hr LC50.

**Acute dermal toxicity** LD50 (rat) > 2,000 mg/kg

**Skin irritation** Mild skin irritation. (rabbit)

**Eye irritation** Moderate eye irritation. (rabbit)

**Sensitisation** Non-sensitizing. (guinea pig)  
OECD Test Guideline 406, Buehler test

## Assessment repeated dose toxicity

Phenmedipham caused haemolytic anaemia, methaemoglobinaemia in animal studies. The observed effects do not appear to be relevant for humans.

Isophorone did not cause specific target organ toxicity in experimental animal studies.

## Assessment mutagenicity

Phenmedipham was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Isophorone was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

## Assessment carcinogenicity

Phenmedipham was not carcinogenic in lifetime feeding studies in rats and mice.

Isophorone caused at high dose levels an increased incidence of tumours in rats, mice in the following organ(s): kidneys, liver, hematopoietic system, praeputial glands. The tumours seen with Isophorone were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

## ACGIH

Isophorone 78-59-1 Group A3

## NTP

None.

## IARC

None.



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## OSHA

None.

## Assessment toxicity to reproduction

Phenmedipham caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Phenmedipham is related to parental toxicity.

Isophorone did not cause reproductive toxicity in a two-generation study in rats.

## Assessment developmental toxicity

Phenmedipham caused developmental toxicity only at dose levels toxic to the dams. Phenmedipham caused a delayed ossification of foetuses. The developmental effects seen with Phenmedipham are related to maternal toxicity.

Isophorone did not cause developmental toxicity in rats and rabbits.

## Further information

Only acute toxicity studies have been performed on the formulated product.  
The non-acute information pertains to the active ingredient(s).

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## SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) 8.4 mg/l flow-through test; Exposure time: 96 h
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) 5.7 mg/l semi-static test; Exposure time: 48 h
<b>Toxicity to aquatic plants</b>	IC50 (Raphidocelis subcapitata (freshwater green alga)) 0.192 mg/l static test; Exposure time: 72 h EC50 (Desmodesmus subspicatus (green algae)) 0.18 mg/l Exposure time: 96 h
<b>Biodegradability</b>	Phenmedipham: not rapidly biodegradable Isophorone: rapidly biodegradable
<b>Koc</b>	Phenmedipham: Koc: 888 Isophorone: Koc: 58
<b>Bioaccumulation</b>	Phenmedipham: Bioconcentration factor (BCF) 165 Does not bioaccumulate. Isophorone: Bioconcentration factor (BCF) 7 Does not bioaccumulate.
<b>Mobility in soil</b>	Phenmedipham: Slightly mobile in soils Isophorone: soluble in water
<b>Environmental precautions</b>	Do not apply directly to water, to areas where surface water is present

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or to intertidal areas below the mean high water mark.  
Do not apply when weather conditions favor runoff or drift.  
Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.  
Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.  
Apply this product as specified on the label.

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## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

<b>Product</b>	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Dispose in accordance with all local, state/provincial and federal regulations.
<b>Contaminated packaging</b>	Do not re-use empty containers. Triple rinse containers. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.
<b>RCRA Information</b>	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

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## SECTION 14: TRANSPORT INFORMATION

### 49CFR

NA-Number	<b>1993</b>
Packaging group	III
Proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (ISOPHORONE SOLUTION)
RQ	Reportable Quantity is reached with 8,264 lb of product.

### IMDG

UN number	<b>3082</b>
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHENMEDIPHAM SOLUTION)
Segregation group according to 5.4.1.5.11.1	IMDG SEGREGATION GROUP 1 - ACIDS

### IATA

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UN number	<b>3082</b>
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHENMEDIPHAM SOLUTION )

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than poison; HAVING A DENSITY OF GREATER THAN 20 LBS. PER CUBIC FOOT

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## SECTION 15: REGULATORY INFORMATION

**EPA Registration No.** 264-616

### US Federal Regulations

#### TSCA list

Isophorone	78-59-1
Nonylphenol ethoxylate, branched	127087-87-0
Solvent Naphtha (petroleum), light aromatic	64742-95-6
1,2,4-Trimethylbenzene	95-63-6

#### US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

#### SARA Title III - Section 302 - Notification and Information

None.

#### SARA Title III - Section 313 - Toxic Chemical Release Reporting

1,2,4-Trimethylbenzene	95-63-6	25,000lbs
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#### US States Regulatory Reporting

##### CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

#### US State Right-To-Know Ingredients

Isophorone	78-59-1	CA, CT, IL, MN, NJ, RI
1,2,4-Trimethylbenzene	95-63-6	CA, MN, NJ, RI

#### Canadian Regulations

##### Canadian Domestic Substance List

Solvent Naphtha (petroleum), light aromatic	64742-95-6
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#### Environmental

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## CERCLA

Isophorone 78-59-1

## Clean Water Section 307 Priority Pollutants

Isophorone 78-59-1

## Safe Drinking Water Act Maximum Contaminant Levels

None.

## International Regulations

### European Inventory of Existing Commercial Substances (EINECS)

Solvent Naphtha (petroleum), light aromatic 64742-95-6

## EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

**Signal word:** Danger!

**Hazard statements:** Corrosive  
Causes skin burns.  
Harmful if swallowed, inhaled or absorbed through the skin.  
Moderate eye irritation.  
Do not get in eyes, on skin, or on clothing.  
Avoid breathing spray mist.  
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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## SECTION 16: OTHER INFORMATION

### Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
CAS-Nr.	Chemical Abstracts Service number
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	US. IARC Monographs on Occupational Exposures to Chemical Agents
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

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**NFPA 704 (National Fire Protection Association):**

Health - 2      Flammability - 2      Instability - 0      Others - none

**HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)**

Health - 2      Flammability - 2      Physical Hazard - 0      PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

**Reason for Revision:** Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

**Revision Date:** 06/30/2015

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