MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	**IN-SPEC® AMARANTH CUSTOM STANDARD**
Catalog #	8414
Version #	02
Revision date	05-Mar-2010
CAS #	Mixture
Manufacturer information	GFS Chemicals, Inc. P.O. Box 245 Powell, OH 43065 US www.gfschemicals.com Fax 740-881-5989 Phone 740-881-5501 Toll Free 800-858-9682 Emergency Assistance Chemtrec 800-424-8300

2. Hazards Identification

Emergency overview	CAUTION Combustible liquid and vapor. Harmful in contact with eyes. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Contact may irritate or burn eyes. Eye contact may result in corneal injury. Do not get this material in contact with eyes.
Skin	Avoid contact with the skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation	Avoid breathing dust/fume/gas/mist/vapors/spray.
Ingestion	Components of the product may be absorbed into the body by ingestion. Do not ingest.
Target organs	Eyes. Skin. Central nervous system. Gastro-intestinal tract. Respiratory system.
Chronic effects	Conjunctiva. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms	Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Conjunctivitis. Defatting of the skin. Skin irritation. Rash.

3. Composition / Information on Ingredients

Hazardous components	**CAS #**	**Percent**
METHYL ALCOHOL	67-56-1	1 - 2.5
Non-hazardous components	**CAS #**	**Percent**
WATER	7732-18-5	90 - 100
AMARANTH	915-67-3	0 - 0.1

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin contact	Take off immediately all contaminated clothing. Wash off with warm water and soap. Get medical attention if irritation develops and persists.

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately. Rinse mouth thoroughly.
Notes to physician	Symptoms may be delayed.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	Combustible by OSHA criteria. NFPA Rating Fire = 2. Materials that must be moderately heated or exposed to relative high ambient temperatures before ignition can occur. Heat may cause the containers to explode. Runoff to sewer may cause fire or explosion hazard.
Extinguishing media	
Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Protection of firefighters	
Protective equipment and precautions for firefighters	In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure.
Storage	The pressure in sealed containers can increase under the influence of heat. Keep away from heat and sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	CAS #	Type	Value	Form
METHYL ALCOHOL	67-56-1	STEL	250 ppm	
		TWA	200 ppm	

U.S. - OSHA

Components	CAS #	Type	Value	Form
METHYL ALCOHOL	67-56-1	PEL	200 ppm	
			260 mg/m3	
		STEL	325 mg/m3	
			250 ppm	
		TWA	200 ppm	
			260 mg/m3	

Personal protective equipment

Respiratory protection	No personal respiratory protective equipment normally required.
Hand protection	Wear protective gloves.
Eye / face protection	Do not get in eyes. Chemical goggles are recommended.
Skin protection	Wear appropriate chemical resistant clothing. Chemical resistant gloves.
General hygeine considerations	When using do not smoke. Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Clear.
Color	Pink to red.
Odor	Slight.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	< 32 °F (< 0 °C)
Freezing point	Not available.
Boiling point	212 °F (100 °C)
Flash point	> 141.8 °F (> 61 °C)
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	0.9976 estimated
Relative density	0.9975 g/cm3 estimated
Solubility (water)	Not miscible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.

Percent volatile > 99 %

10. Chemical Stability & Reactivity Information

Chemical stability Material is stable under normal conditions. Risk of ignition.

Conditions to avoid Heat, flames and sparks.

Incompatible materials None known.

Hazardous decomposition products No hazardous decomposition products are known.

Possibility of hazardous reactions Hazardous polymerization does not occur.

11. Toxicological Information

Sensitization

US ACGIH Threshold Limit Values: Skin designation

METHYL ALCOHOL	67-56-1	Can be absorbed through the skin.

Acute effects

Acute Dermal: LD 50

METHYL ALCOHOL	67-56-1	Rabbit 15800 mg/kg

Acute Inhalation: LC 50

METHYL ALCOHOL	67-56-1	Cat 43.68 mg/l 6 h
METHYL ALCOHOL	67-56-1	Rat 87.5 mg/l 6 h
METHYL ALCOHOL	67-56-1	Cat 85.41 mg/l 4.5 h
METHYL ALCOHOL	67-56-1	Rat 64000 mg/l 4 h

Acute Oral: LD 50

METHYL ALCOHOL	67-56-1	Mouse 7300 mg/kg
METHYL ALCOHOL	67-56-1	Rat 5628 mg/kg
METHYL ALCOHOL	67-56-1	Dog 8000 mg/kg
METHYL ALCOHOL	67-56-1	Rabbit 14.4 g/kg
METHYL ALCOHOL	67-56-1	Monkey 2 g/kg

Acute Toxicity other routes: LD 50

METHYL ALCOHOL	67-56-1	Mouse 4710 mg/kg Intravenous
METHYL ALCOHOL	67-56-1	Mouse 4100 mg/kg Subcutaneous
METHYL ALCOHOL	67-56-1	Hamster 8555 mg/kg Intraperitoneal
METHYL ALCOHOL	67-56-1	Rat 7529 mg/kg Intraperitoneal
METHYL ALCOHOL	67-56-1	Rat 2131 mg/kg Intravenous
METHYL ALCOHOL	67-56-1	Mouse 10765 mg/kg Intraperitoneal
METHYL ALCOHOL	67-56-1	Rabbit 8907 mg/kg Intravenous
METHYL ALCOHOL	67-56-1	Rabbit 1826 mg/kg Intraperitoneal
METHYL ALCOHOL	67-56-1	Monkey 3 g/kg Intraperitoneal
METHYL ALCOHOL	67-56-1	Guinea pig 3556 mg/kg Intraperitoneal

Local effects Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.

Chronic effects Hazardous by OSHA criteria. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs: Evidence of carcinogenicity in humans

AMARANTH	915-67-3	No data.

Epidemiology Hazardous by OSHA criteria.

Neurological effects Hazardous by OSHA criteria.

Further information Symptoms may be delayed.

12. Ecological Information

Ecotoxicity

Invertebrate Toxicity: EC 50

METHYL ALCOHOL	67-56-1	Water flea (Daphnia magna) > 10000 mg/l 48 h Static Intoxication
METHYL ALCOHOL	67-56-1	Water flea (Daphnia magna) > 10000 mg/l 24 h Static Intoxication
METHYL ALCOHOL	67-56-1	Water flea (Daphnia obtusa) 21100 - 23400 mg/l 48 h Static Intoxication
METHYL ALCOHOL	67-56-1	Water flea (Daphnia obtusa) 22800 - 24400 mg/l 24 h Static Intoxication
METHYL ALCOHOL	67-56-1	Water flea (Daphnia magna) 20450 - 29350 mg/l 48 h Static Intoxication

Micro-organisms Toxicity: LC 50

METHYL ALCOHOL	67-56-1	Turbellarian, flatworm (Dugesia tigrina) > 100 mg/l 96 h Static Mortality

Persistence and degradability Not available.

13. Disposal Considerations

Waste codes

US RCRA Hazardous Waste U List: Reference

METHYL ALCOHOL	67-56-1	U154

Disposal instructions Dilute waste in large quantities of water and flush into sewer connected to wastewater treatment system in compliance with applicable laws and regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

14. Transport Information

DOT

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

METHYL ALCOHOL	67-56-1	1.0 %

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

METHYL ALCOHOL	67-56-1	500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

METHYL ALCOHOL	67-56-1	Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 1*
Flammability: 2
Physical hazard: 1

NFPA ratings
Health: 1
Flammability: 2
Instability: 1

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This data sheet contains changes from the previous version in section(s): This document has undergone significant changes and should be reviewed in its entirety.