

MSDS: CHEM013 – Standard

C Technologies, Inc. does not manufacture CHEM013. CHEM013 is manufactured exclusively for C Technologies by GFS Chemicals. Attached you will find the MSDS.

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name IN-SPEC® PATENT BLUE COLOR STANDARD,
CUSTOM UV-VISIBLE REFERENCE MATERIAL

ITEM # 8416

Version # 01

Revision date 14-May-2015

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 (International)

Phone 1-800-858-9682 (U.S. and Canada)

Emergency Assistance Chemtrec 800-424-9300

2. Hazard(s) Identification

Emergency overview CAUTION
Combustible liquid. Harmful in contact with eyes. Prolonged exposure may cause chronic effects. This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Physical hazards Flammable liquids Category 4

Health hazards Reproductive toxicity Category 1B
Specific target organ toxicity, repeated exposure Category 1
(central nervous system, visual organs)

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Precautionary statement
Prevention: Obtain special instruction before use. Do not handle until all the safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response If exposed or concerned: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep cool. Store locked up.

Disposal Dispose of contents/container to an appropriate treatment and disposal facility in accordance with product characteristics at time of disposal.

3. Composition I Information on Ingredients

| Non-Hazardous Components | CAS # | Percent |
|--------------------------|-----------|----------|
| WATER | 7732-18-5 | 90 - 100 |
| PATENT BLUE VIOLET | 129-17-9 | < 0.1 |

| Hazardous components | CAS # | Percent |
|----------------------|---------|---------|
| METHYL ALCOHOL | 67-56-1 | 1 - < 3 |

4. First Aid Measure

| | |
|----------------------------|---|
| Eye contact | Immediately flushes eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Skin contact | Wash off with warm water and soap. Get medical attention if irritation develops and persists. Get medical attention if irritation develops and persists. |
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Ingestion | Rinse mouth thoroughly. Get medical attentions if symptoms occur. |
| 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. Show this safety data sheet to the doctor in attendance. |
| Symptoms acute and delayed | Behavioral changes, Decrease in motor functions, Narcosis, Direct contact with eyes may cause temporary irritation. Prolonged exposure may cause chronic effects. |

5. Fire Fighting Measures

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| 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 fog. Foam. Dry chemical powder, Carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire. |
| Protective equipment and precautions for firefighters | In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk. |
| Specific methods | Use standard firefighting procedures and consider the hazard of the other involve materials. |

6. Accidental Release Measures

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| Personal precautions | Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wore appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| Methods and Material for Containment and Cleaning up | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles away from spilled materials. Large Spills: Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away. 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. Ventilate the contaminated area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to |

containers for later disposal. Wipe up with absorbent material. Clean surface to remove residual contamination.

Wear appropriate protective equipment and clothing during clean-up. Cover with plastic sheet to prevent spreading. 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

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|----------|--|
| 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 eat, drink or smoke when using. Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Avoid release to the environment. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. |
| Storage | The pressure in sealed containers can increase under the influence of heat. Keep away from heat and sources of ignition. Store it in a well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children. |

8. Exposure Controls | Personal Protection

Occupational exposure limits

U.S. ACGIH Threshold Limit Values

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

U.S. OSHA Limits for Air Contaminants

| Components | CAS # | Type | Value |
|----------------|---------|------|---------------------------------|
| METHYL ALCOHOL | 67-56-1 | PEL | 200 ppm / 260 mg/m ³ |

U.S. NIOSH Pocket Guide to Chemical Hazards

| Components | CAS # | Type | Value |
|----------------|---------|------|---------------------------------|
| METHYL ALCOHOL | 67-56-1 | STEL | 250 ppm / 325 mg/m ³ |
| | | TWA | 200ppm / 260 mg/m ³ |

Individual protection measures, such as Personal protective equipment

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|--------------------------------|---|
| Hand protection | Wear chemical resistant gloves. |
| Eye/ face protection | Wear safety glasses with side shields. |
| Skin protection | Wear appropriate chemical resistant clothing. Use chemical resistant gloves. |
| General hygiene considerations | When using do not eat, drink or smoke. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice. |
| General | Eye wash fountains are required. |

9. Physical & Chemical Properties

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|--|------------------------------------|
| Appearance | Clear |
| Physical state | Liquid |
| Color | Dark blue |
| Form | Aqueous solution. |
| Odor | Slight |
| Odor threshold | not available |
| pH | Not available. |
| Melting point | < 32 °F (< 0 °C) |
| Freezing point | not available |
| Boiling point | 210.2 °F (99.13 °C) estimated |
| 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 | 0.9949 estimated |
| Relative density | 0.9948 g/cm ³ estimated |
| Solubility (water) | not miscible |
| Partition coefficient | not available |
| Auto-ignition temperature | not available |
| Decomposition temperature | not available |
| Other Information | |
| Density | 0.998 g/cm ³ estimated |
| Percent volatile | > 99 % |
| VOC (weight %) | < 2.5 % |

10. Chemical Stability & Reactivity Information

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|------------------------------------|---|
| Reactivity | Stable and non-reactive under normal condition of use |
| Chemical stability | Material is stable under normal conditions |
| Conditions to avoid | Heat, flames and sparks |
| Incompatible materials | Strong oxidizing agents |
| Hazardous decomposition products | May include oxides of carbon |
| Possibility of hazardous reactions | Hazardous polymerization does not occur |

11. Toxicological Information

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|---|---------|-----------------------------------|
| 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 products may be absorbed into the body through the skin. Contact may irritate or burns 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 IRAC, ACGIH, NTP or OSHA. IARC monographs: Evidence of carcinogenicity in humans. |
| Patent Blue Violet | (CAS 129-17-9) 3 not classifiable as to carcinogenicity to humans |

12. Ecological Information

Ecotoxicity This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Invertebrate Toxicity: EC 50

METHYL ALCOHOL 67-56-1 Water flea (Daphnia magna) > 10000 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

Environmental effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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: Do not allow this material to drain into sewers/water supplies. 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.
IATA Not regulated as dangerous goods.
IMDG 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 - <3 %

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
Section 311 hazardous chemical

| Inventory status | Inventory name | on inventory (yes/no)* |
|--------------------------------|---|------------------------|
| Country(s) or region | | |
| 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 | Yes |
| 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
PATENT BLUE VIOLET 129-17-9 500 LBS

16. Other Information

| | |
|---|---|
| Further information | HMIS® is a registered trade and service mark of the NPCA. |
| HMIS® ratings | Health: 1* Flammability: 2 Physical hazard: 0 |
| NFPA ratings | Health: 1 Flammability: 2 Instability: 0 |
| Disclaimer | The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. |
| Issue date | 14-May-2015 |
| This data sheet contains changes from the previous version in section(s): | 1, 2, 4, 6, and 8 |
| This document has undergone significant changes and should be reviewed in its entirety: | No |