SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 - Product Identifiers

Catalog Name: FIA-CAL-07

Description: FIA Calibration Mix - Level 7

1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

1.3 - Supplier Details

Company: AccuStandard, Inc.

125 Market St.

New Haven, CT 06513 USA

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

1.4 - Emergency Telephone Number

Emergency Phone #: AccuStandard, Inc.

1-203-502-7070 (USA)

+001-203-502-7070 (International)

24 hours / 7 days a week

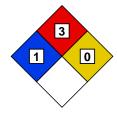
SECTION 2 - HAZARDS IDENTIFICATION

2.1 - GHS Label Elements











Signal Word: Danger

Hazard Codes:

H302 - Harmful if swallowed. (Acute toxicity, oral, category 4)

H305 - Aspiration hazard if swallowed - may be harmful if swallowed and enters airways. (Aspiration hazard, catagory 2)

H315 - Irritating to skin. (Skin corrosion/irritation, category 2)

H320 - Irritating to eyes. (Eye damage/irritation, category 2B)

H332 - Harmful if inhaled. (Acute toxicity, inhalation, category 4)

H350 - This product is or contains a component that is classified (ACGIH, IARC, NTP, OSHA) as a cancer hazard. (Carcinogenicity, category 1A)

H360, H350 - California Proposition 65 Warning: This product contains a component (or components) that may cause cancer and genetic effects in a concentration greater than or equal to 0.1%.

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SECTION 2 - HAZARDS IDENTIFICATION - continued

2.1 - GHS Label Elements - continued

H371 - May cause kidney, nerve, and respiratory system damage. (Specific target organ toxicity - single exposure), Category 2

Precautionary Codes:

- P202 This product should only by used by persons trained in the safe handling of hazardous chemicals.
- P233 Store in a tightly closed container. (P404)
- P260 Do not breathe vapor.
- P262 Do not get in eyes, on skin or clothing.
- P264 Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.
- P284 Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.
- P331 Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
- P338 Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.
- P352 Skin contact: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

2.2 - Other Hazards

2.2.1 - Symptom of Exposure Health/Environment

Vapor inhalation causes irritation of nasal and respiratory passages, headache, dizziness, nausea, and central nervous system depression.

May cause kidney, nerve, and respiratory system damage. (Specific target organ toxicity - single exposure), Category 2

Aspiration hazard if swallowed - may be harmful if swallowed and enters airways. (Aspiration hazard, catagory 2)

May cause central nervous system damage.

2.2.2 - Potential Health Effects

Irritating to eyes. (Eye damage/irritation, category 2B)

Irritating to skin. (Skin corrosion/irritation, category 2)

May be harmful if absorbed through the skin. (Acute toxicity, dermal, category 5)

Irritating to mucous membrane and upper respiratory system.

Harmful if inhaled. (Acute toxicity, inhalation, category 4)

Harmful if swallowed. (Acute toxicity, oral, category 4)

2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

2.2.4 - Carcinogenicity

California Proposition 65 Warning: This product contains a component (or components) that may cause cancer and genetic effects in a concentration greater than or equal to 0.1%.

This product is or contains a component that is classified (ACGIH, IARC, NTP, OSHA) as a cancer hazard. (Carcinogenicity, category 1A)

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SECTION 3 - COMPOSITION / ANALYTES DATA

Description: FIA Calibration Mix - Level 7

| | | | ACGIH -TLV (mg/m³) | | ng/m³) | OSHA -PEL (mg/m³) | | |
|-----------------------------|-----------|-----------------|--------------------|------|--------|-------------------|------|------|
| Analyte | CAS# | % Concentration | TWA | STEL | Skin | TWA | STEL | Skin |
| 1-Pentene | 109-67-1 | 4.000 | | | | | | |
| 2,3-Dimethylbutene-2 | 563-79-1 | 4.000 | | | | | | |
| 1-Heptene | 592-76-7 | 4.000 | | | | | | |
| n-Pentane | 109-66-0 | 3.200 | | | | 2950 | | |
| n-Hexane | 110-54-3 | 3.600 | | | | 180 | | |
| Cyclohexane | 110-82-7 | 6.000 | | | | 1050 | | |
| n-Heptane | 142-82-5 | 5.600 | | | | 2000 | | |
| 2,3-Dimethylpentane | 565-59-3 | 5.600 | | | | | | |
| Isooctane | 540-84-1 | 7.600 | | | | | | |
| n-Octane | 111-65-9 | 5.600 | | | | 2350 | | |
| n-Decane | 124-18-5 | 2.800 | | | | | | |
| Benzene | 71-43-2 | 1.200 | | | Х | | | |
| Toluene | 108-88-3 | 9.600 | 188 | | Х | | | |
| Ethylbenzene | 100-41-4 | 2.400 | | | | 435 | | |
| p-Xylene | 106-42-3 | 2.400 | 434 | 651 | | 435 | | |
| o-Xylene | 95-47-6 | 2.400 | 434 | 651 | | 435 | | |
| m-Xylene | 108-38-3 | 4.800 | 434 | 651 | | 435 | | |
| 1,2,4-Trimethylbenzene | 95-63-6 | 2.400 | 123 | | | | | |
| 1,3,5-Trimethylbenzene | 108-67-8 | 2.400 | 123 | | | | | |
| 1,2,4,5-Tetramethylbenze ne | 95-93-2 | 1.200 | | | | | | |
| Naphthalene | 91-20-3 | 1.200 | | | | 50 | | |
| MtBE | 1634-04-4 | 18.000 | | | | | | |

SECTION 4 - FIRST AID MEASURES

4.1 - First Aid Procedures - General

Get medical assistance for all cases of overexposure.

4.2 - Eye Contact

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. (P338)

4.3 - Skin Contact

Skin contact: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists. (P352)

4.4 - Inhalation

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

4.5 - Ingestion

Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. (P331)

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SECTION 5 - FIRE FIGHTING MEASURES

5.1 - Flammable Properties

Dangerous fire and explosive hazard.

Vapors can travel to a source of ignition and flash back.

Containers can build up pressure if exposed to heat.

Forms flammable vapor-air mixtures above ambient temperature.

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

5.2 - Extinguishing Media

Use alcohol foam, carbon dioxide, or dry chemical when fighting fires involving this material.

Water spray to cool fire-exposed containers and disperse vapors.

5.3 - Protection of Firefighters

As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 - Spill Response

Wear suitable protective equipment listed under Exposure Controls / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Dispose as hazardous waste. Comply with Federal, State and local regulations.

SECTION 7 - HANDLING AND STORAGE

Store in a tightly closed container. (P404)

Keep refrigerated.

Sensitive to air and light.

Do not breathe vapor. (P260)

Use with adequate ventilation.

Do not get in eyes, on skin or clothing. (P262)

Avoid prolonged or repeated exposure.

Use spark-proof tools and explosion-proof equipment

This product should only by used by persons trained in the safe handling of hazardous chemicals. (P202)

SECTION 8 - EXPOSURE CONTROLS

8.1 - Engineering Controls/PPE

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available. (P264)

8.2 - General Hygene Considerations

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

Material should be handled or transferred in an approved fume hood or with adequate ventilation.

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SECTION 8 - EXPOSURE CONTROLS - continued

8.2 - General Hygene Considerations - continued

Compatible chemical-resistant protective gloves must be worn to prevent skin contact. Inspect gloves prior to use. Use proper glove removal technique to avoid contact with product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash hands thoroughly and dry.

Use eye protection tested and approved under the appropriate government standards such as NIOSH (US) or EN 166 (EU).

All recommendations are advisory only and must be evaluated by an industrial hygienist and/or safety officer familiar with the specific situation of anticipated use, such as concentration and amount of the substance in the workplace. Any recommendation should not be construed as offering an approval for any specific use of the product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid

Odor: N/A

Odor Threshold: N/A

pH: N/A

Melting Point: N/A
Boiling Point: N/A

Flash Point: <73 °F / <23 °C

Evaporation Rate (Butyl Acetate=1): N/A

Flammability Class: 1B

Lower Flammability Level: N/A Upper Flammability Level: N/A

Vapor Pressure: N/A

Vapor Density (Air = 1): N/A

Specific Gravity: N/A
Solubility in Water: N/A
Partition Coefficient: N/A

Autoignition Temperature: N/A
Decomposition Temperature: N/A

Viscosity: N/A
VOC Content: N/A
Percent Volatile: 99+

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid: Acids

Oxidizers

Hazardous Decomposition: Carbon oxides Hazardous Polymerization: Will not occur

Condition to Avoid: Heat; Contact with ignition sources; Exposure to air or moisture

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SECTION 11 - TOXICOLOGICAL INFORMATION

Human Health Toxicity

See section 2 for specific toxicological information for the ingredients of this product.

LD50 (Oral): N/A LD50 (Dermal): N/A LC50 (Inhalation): N/A

Aspiration hazard if swallowed - may be harmful if swallowed and enters airways. (Aspiration hazard, catagory 2)

WARNING: This product contains chemical(s) known to the state of California to cause cancer and to cause birth defects or other reproductive harm.

No other information related to the toxicological properties of this product is available at this time.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Toxicity

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

No other information related to the ecological properties of this product is available at this time.

<u>SECTION 13 - DISPOSAL CONSIDERATIONS</u>

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA)

UN Number: UN1993

Class: 3

Packing Group: II

Proper Shipping Name: Flammable liquid, n.o.s. (Isooctane, Toluene, MtBE)

Poison by Inhalation: No Marine Pollutant: No

SECTION 15 - REGULATORY INFORMATION

This product contains a compound or compounds subject to EU Regulation (EC) No 1907/2006 (REACH) on Annex XIV, Annex XVII, and/or Article 59. Refer to the below table for details.

WARNING: This product contains chemical(s) known to the state of California to cause cancer and to cause birth defects or other reproductive harm.

All components are listed on the TSCA Inventory.

For laboratory, research and development use only. Not for manufacturing or commercial purposes.

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

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SECTION 15 - REGULATORY INFORMATION - continued

| | | | REACH (1907/2006) | | | | |
|-------------|----------|-----------------|-------------------|------------|------------|--|--|
| Analyte | CAS# | % Concentration | Annex XIV | Annex XVII | Article 59 | | |
| Cyclohexane | 110-82-7 | 6.000 | | Х | | | |
| Benzene | 71-43-2 | 1.200 | | Х | | | |
| Toluene | 108-88-3 | 9.600 | | Х | | | |

SECTION 16 - OTHER INFORMATION

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations. Chemicals are classified using the Globally Harmonized System for Classification and Labeling of Chemicals and CLP Regulation (EC) No. 1272/2008.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.

Legend: N/A = Not Available ND = Not Determined NR = Not Regulated

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

HMIS/NFPA HAZARD INDEX

- 0 Minimal
- 1 Slight
- 2 Moderate
- 3 Serious
- 4 Severe
- * Additional Hazard

GHS HAZARD INDEX

Category 1 - Most Severe Category 5 - Least Severe

**** End of Document ****

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