SAFETY DATA SHEET


1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

IDENTIFICATION OF THE MIXTURE

TRADE/MATERIAL NAME: SpecSeal® Intumescent Wrap Strips Blu2, Blu220, Blu230, Blu240

RELEVANT USE of the SUBSTANCE: Firestop Device

USES ADVISED AGAINST: None

SUPPLIER/MANUFACTURER'S NAME: Specified Technologies, Inc.

Address: 210 Evans Way,
Somerville, New Jersey 08876

Business Phone: (908) 526-8000 (8:00am to 5:00pm Eastern Standard Time)

Emergency Phone: U.S., Canada: 1-800-255-3924 (24 hrs)

International: +1-813-248-0585 (Collect-24 hrs)

EMAIL of Competent Person for Information on SDS: techserv@stifirestop.com

NOTE: ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, Canadian WHMIS [Controlled Products Regulations], Mexican NOM018-STPS 2000, SPRING Singapore, and Japanese JIS Z7250 required information is included in appropriate sections based on the U.S. ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the countries listed above. This product is defined as an “Article” under the U.S. Federal OSHA Hazard Communication Standard (29 CFR 1910.1200), EU Directives, and the Canadian Workplace Hazardous Materials Standard. Refer to Section 15 (Regulatory Information) for specific regulatory citations. As articles, this product presents negligible health and physical hazards under reasonably anticipated circumstances of use. Subsequently, a Material Safety Data Sheet is not required under Standards cited above. This document is prepared to provide persons using this product with additional safety information.

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION AND EU CLP REGULATION (EC) 1272/2008 LABELING AND CLASSIFICATION: This product is an article and is not required to be classified under CLP Regulation (EC) 1272/2008.

EU 67/548/EEC LABELING AND CLASSIFICATION: This product is an article and is not required to be classified under European Community Council Directive 67/548/EEC or subsequent Directives.

KOREAN ISHA (Notice 2009-68) LABELING AND CLASSIFICATION: As an article, this product is not subject to ISHA Notice 2009-68.

3. COMPOSITION and INFORMATION ON INGREDIENTS

This product is an article and as such no components of this product pose a hazard; no component information is given in this SDS.

4. FIRST-AID MEASURES

Skin Exposure: As an article, no need for first aid is anticipated.

Inhalation: As an article, no need for first aid is anticipated.

Eye Exposure: As an article, no need for first aid is anticipated.

Ingestion: As an article, no need for first aid is anticipated.

5. FIRE-FIGHTING MEASURES

FIRE EXTINGUISHING MEDIA: Use extinguishing materials suitable for the surrounding area.

UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is formulated to be non-flammable and non-combustible.

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: No Special protective actions for fire-fighters are anticipated.
6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: Not applicable.
PERSONAL PROTECTIVE EQUIPMENT: Not applicable.
METHODS FOR CLEAN-UP AND CONTAINMENT: Not applicable.
ENVIRONMENTAL PRECAUTIONS: Not applicable.

7. HANDLING and STORAGE

PRECAUTIONS FOR SAFE HANDLING: No special requirements.
CONDITIONS FOR SAFE STORAGE: No special requirements.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/CONTROL PARAMETERS: As an article which does not release or otherwise result in exposure to hazardous chemicals under normal use, no personal protective equipment (PPE) is required.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Solid.
COLOR: Black with Blue Label
ODOR: Not available.
ODOR THRESHOLD: Not available.
FLAMMABLE LIMITS (in air by volume, %): Not available.
OXIDIZING PROPERTIES: Not applicable.
DECOMPOSITION TEMPERATURE: Not available.
PERCENT VOLATILE: 0
AUTOIGNITION TEMPERATURE: Not available.
FLASH POINT: Not available.
FREEZING/MELTING POINT: Not available.
BOILING POINT: Not applicable.
VAPOR PRESSURE: Not applicable.
SPECIFIC GRAVITY (water = 1): Not applicable.
VAPOR DENSITY (air = 1): Not applicable.
CARB VOC: Not applicable.
EVAPORATION RATE (n-BuAc = 1): Not applicable.
SCAQMD (U.S. EPA Method 24): Not applicable.
SOLUBILITY IN WATER: Insoluble.
SOLUBILITY IN SOLVENTS: Not applicable.
COEFFICIENT WATER/OIL DISTRIBUTION: Not established.
PH: Not applicable.

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: This product is stable when properly stored at normal temperatures.

11. TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE:

Inhalation: Due to the form of the product, inhalation is unlikely.
Contact with Skin or Eyes: Due to the form of the product, contact with the eyes is unlikely
Skin Absorption: Due to form of product, skin absorption is not a likely route of exposure.
Ingestion: Ingestion is not a likely route of exposure, due to the form of the product.
Injection: Injection is not likely, due to the form of the product.

12. ECOLOGICAL INFORMATION

MOBILITY: As an article, this product will not be mobile in soil.
PERSISTENCE AND BIODEGRADABILITY: No specific information is available regarding persistence and biodegradability.
BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential.
ECOTOXICITY: This product has not been tested for aquatic or animal toxicity. All releases to terrestrial, atmospheric and aquatic environments should be avoided.
13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: Waste disposal must be in accordance with appropriate Federal, State, and local regulations.
U.S. EPA WASTE NUMBER: Not applicable.

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS: This product is not classified as dangerous goods, per U.S.
DOT regulations, under 49 CFR 172.101.
TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is not classified as
Dangerous Goods, per regulations of Transport Canada.
INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA): This product is not classified as dangerous goods under rules
of IATA.
INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: This product is not classified as Dangerous Goods
by the International Maritime Organization.
OFFICIAL MEXICAN STANDARD; REGULATION FOR THE TRANSPORT OF DANGEROUS GOODS AND RESIDUES:
This product is not classified as Dangerous Goods, per transport regulations of Mexico.
SINGAPORE STANDARD 286: PART A: This product has no requirements under the Specification for Caution Labeling for
Hazardous Substances, Part 4: Marking of Packages, Containers and Vehicles, as it does not meet the criteria for any
hazard class under this regulation.
TRANSPORT IN BULK ACCORDING TO THE IBC CODE: See the information under the individual jurisdiction listings for
IBC information.
ENVIRONMENTAL HAZARDS: This material does not meet the criteria of environmentally hazardous according to the
criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN) and is not listed in Annex III
under MARPOL 73/78.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:
U.S. SARA Reporting Requirements: As an article, this product is not subject to the reporting requirements of Sections 302, 304, and
313 of Title III of the Superfund Amendments and Reauthorization Act.
U.S. SARA Hazard Categories (Section 311/312, 40 CFR 370-21): ACUTE: No; CHRONIC: No; FIRE: No; REACTIVE: No; SUDDEN
RELEASE: No
U.S. SARA Threshold Planning Quantity (TPQ): As an article, this product is not subject to Threshold Planning Quantities, per 40 CFR
370.20.
U.S. CERCLA Reportable Quantity (RQ): Not applicable.
U.S. TSCA Inventory Status: Components of this product are listed on the TSCA Inventory.
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): No component is on the California Proposition 65 lists.
CANADIAN REGULATIONS:
Canadian DSL/NDSL Inventory Status: Components are on the DSL or NDSL Inventories.
Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: Components are not on the CEPA Priorities Substances Lists.
Canadian WHMIS Classification and Symbols: As an article, this product is not subject to the Controlled Product Regulations.
CHINESE REGULATIONS:
Chinese Inventory of Existing Chemical Substances Status: As an article, this product is not subjected to requirements under the Chinese
Inventory of Existing Chemical Substances (IECSC).
JAPANESE REGULATIONS:
Japanese ENCS: As an article, this product is not subjected to requirements under ENCS Inventory.
Japanese Ministry of Economy, Trade, and Industry (METI) Status: As an article, this product is not subjected to requirements under the
Japanese METI.
Poisonous and Deleterious Substances Control Law: As an article, this product is not subjected to requirements under the Poisonous
and Deleterious Substances Control Law.
KOREAN REGULATIONS:
Korean Existing Chemicals List (ECL) Status: As an article, this product is not subjected to requirements under the Korean ECL Inventory.
MEXICAN REGULATIONS:
Mexican Workplace Regulations (NOM-018-STPS-2000): This product is not classified as hazardous.
SINGAPORE REGULATIONS:
List of Controlled Hazardous Substances: As an article, this product is not subjected to requirements under the Singapore List of
Controlled Substances.
Code of Practice on Pollution Control Requirements: As an article, this product is not subjected to requirements under the Singapore
Code of Practice on Pollution Control.
TAIWANESE REGULATIONS:
Taiwan Existing Chemical Substances Inventory Status: As an article, this product is not subjected to requirements under the Taiwan
Existing Chemicals List.
Hazardous Materials Identification System Hazard Ratings

- **FLAMMABILITY HAZARD:** 0 Minimal Hazard: Materials that will not burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes.

**DEFINITION OF TERMS**

- A large number of abbreviations and acronyms appear on a SODS. Some of these, which are commonly used, include the following:
  - **PII** or Draize: A rating system was developed by the National Paint and Coating Association and has been adopted by industry to identify the degree of chemical hazards. A rating of 0 indicates that the material is essentially non-irritating. A rating of 5 indicates that the material is highly irritating. Ratings of 1, 2, and 3 fall between these extremes.
  - **LD50** (Lethal Dose 50%): The dose of a chemical that is lethal to 50% of the test animals.
  - **TLV** (Threshold Limit Value): The concentration of a substance in the air that is considered to be safe for human beings to breathe for an 8-hour workday.
  - **STEL** (Short Term Exposure Limit): The maximum concentration of a substance in the air that can be breathed for a short period of time without causing harm.
  - **PEL** (Permissible Exposure Limit): The maximum concentration of a substance in the air that is considered to be safe for human beings to breathe for an 8-hour workday.

**EXPOSURE LIMITS IN AIR:**

- **TLV:** The concentration of a substance in the air that is considered to be safe for human beings to breathe for an 8-hour workday.
- **STEL:** The maximum concentration of a substance in the air that can be breathed for a short period of time without causing harm.
- **CEILING LEVEL:** The maximum concentration of a substance in the air that is considered to be safe for human beings to breathe for an 8-hour workday.
- **EXPOSURE LIMITS IN AIR:**

- **Inhalation Toxicity LC50 4-hrs Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 4 hours.
- **Inhalation Toxicity LC50 30-minute Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 30 minutes.
- **Inhalation Toxicity LC50 15-minute Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 15 minutes.
- **Inhalation Toxicity LC50 24-hour Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 24 hours.
- **Inhalation Toxicity LC50 1-hour Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 1 hour.
- **Inhalation Toxicity LC50 5-minute Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 5 minutes.
- **Inhalation Toxicity LC50 3-minute Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 3 minutes.
- **Inhalation Toxicity LC50 1-minute Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 1 minute.
- **Inhalation Toxicity LC50 30-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 30 seconds.
- **Inhalation Toxicity LC50 10-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 10 seconds.
- **Inhalation Toxicity LC50 5-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 5 seconds.
- **Inhalation Toxicity LC50 1-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 1 second.
- **Inhalation Toxicity LC50 0.1-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.1 second.
- **Inhalation Toxicity LC50 0.01-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.01 second.
- **Inhalation Toxicity LC50 0.001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.001 second.
- **Inhalation Toxicity LC50 0.0001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.0001 second.
- **Inhalation Toxicity LC50 0.00001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00001 second.
- **Inhalation Toxicity LC50 0.000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.000001 second.
- **Inhalation Toxicity LC50 0.0000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.0000001 second.
- **Inhalation Toxicity LC50 0.00000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00000001 second.
- **Inhalation Toxicity LC50 0.000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.000000001 second.
- **Inhalation Toxicity LC50 0.0000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.0000000001 second.
- **Inhalation Toxicity LC50 0.00000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00000000001 second.
- **Inhalation Toxicity LC50 0.000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.000000000001 second.
- **Inhalation Toxicity LC50 0.0000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.0000000000001 second.
- **Inhalation Toxicity LC50 0.00000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00000000000001 second.
- **Inhalation Toxicity LC50 0.000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.000000000000001 second.
- **Inhalation Toxicity LC50 0.0000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.0000000000000001 second.
- **Inhalation Toxicity LC50 0.00000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00000000000000001 second.
- **Inhalation Toxicity LC50 0.000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.000000000000000001 second.
- **Inhalation Toxicity LC50 0.0000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.0000000000000000001 second.
- **Inhalation Toxicity LC50 0.00000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00000000000000000001 second.
- **Inhalation Toxicity LC50 0.000000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.000000000000000000001 second.
- **Inhalation Toxicity LC50 0.0000000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00000000000000000000001 second.
- **Inhalation Toxicity LC50 0.00000000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.000000000000000000000001 second.
- **Inhalation Toxicity LC50 0.0000000000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.00000000000000000000000001 second.
- **Inhalation Toxicity LC50 0.000000000000000000000000001-sec Rat:** The concentration of a substance in the air that is lethal to 50% of the test animals after exposure for 0.0000000000000000000000000001 second.
DEFINITION OF TERMS (Continued)

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS:

HEALTH HAZARD: 6 Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials. Gases and vapors with an LC50 for acute inhalation toxicity greater than 10,000 ppm. Dusts and mists with an LC50 for acute inhalation toxicity greater than 200 mg/L. Materials with an LD50 for acute oral toxicity greater than 2000 mg/kg. Materials essentially non-irritating to the respiratory tract, eyes, and skin. 1 Materials that, under emergency conditions, can cause significant irritation. Gases and vapors with an LC50 for acute inhalation toxicity greater than 5,000 ppm but less than or equal to 10,000 ppm. Dusts and mists with an LC50 for acute inhalation toxicity greater than 10 mg/L, but less than or equal to 200 mg/L. Materials with an LD50 for acute dermal toxicity greater than 1000 mg/kg but less than or equal to 2000 mg/kg. Materials that slightly to moderately irritate the respiratory tract, eyes, and skin. Materials with an LD50 for acute oral toxicity greater than 500 mg/kg but less than or equal to 2000 mg/kg. 2 Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. Gases with an LC50 for acute inhalation toxicity greater than 3,000 ppm but less than or equal to 5,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its LC50 for acute inhalation toxicity, if its LC50 is less than or equal to 5000 ppm and that does not meet the criteria for either degree of hazard 3 or degree of hazard 4. Dusts and mists with an LC50 for acute inhalation toxicity greater than 2 mg/L, but less than or equal to 10 mg/L. Materials with an LD50 for acute dermal toxicity greater than 200 mg/kg but less than or equal to 1000 mg/kg. Compressed liquefied gases with boiling points between -30°C (22°F) and -45°C (4°F) that cause severe tissue damage, depending on duration of exposure. Materials that are respiratory irritants. Materials that cause severe, but reversible irritation to the eyes or are lachrymator. Materials that are primary skin irritants or sensitizers. Materials whose LD50 for acute oral toxicity is greater than 50 mg/kg but less than or equal to 500 mg/kg. 3 Materials that, under emergency conditions, can cause serious or permanent injury. Gases with an LC50 for acute inhalation toxicity greater than 1000 ppm but less than or equal to 3000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than its LC50 for acute inhalation toxicity, if its LC50 is less than or equal to 3000 ppm and that does not meet the criteria for degree of hazard 4. Dusts and mists with an LC50 for acute inhalation toxicity greater than 0.5 mg/L but less than or equal to 2 mg/L. Materials with an LD50 for acute dermal toxicity greater than 40 mg/kg but less than or equal to 200 mg/kg. Materials that are corrosive to the respiratory tract. Materials that are corrosive to the eyes or cause irreversible corneal opacity. Materials corrosive to the skin. Carboxygenic gases that cause frothable and irreversible tissue damage. Compressed liquefied gases boiling points below -5°C (-23°F) that cause frothable and irreversible tissue damage. Materials with an LD50 for acute oral toxicity greater than 5 mg/kg but less than or equal to 20 mg/kg.

HEALTH HAZARD (continued): 4 Materials that, under emergency conditions, can be lethal. Gases with an LC50 for acute inhalation toxicity less than or equal to 1,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than its LC50 for acute inhalation toxicity, if its LC50 is less than or equal to ten times its LD50 for acute inhalation toxicity, if it is LC50 is less than or equal to 1000 ppm. Dusts and mists whose LC50 for acute inhalation toxicity is less than or equal to 0.5 mg/L. Materials whose LD50 for acute dermal toxicity is less than or equal to 40 mg/kg. Materials whose LD50 for acute oral toxicity is less than or equal to 5 mg/kg. FLAMMABILITY HAZARD: 5 Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. Materials that must be preheated before ignition can occur. Materials in this degree require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Materials that will burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. Materials that are readily dispersible in air and will burn readily. Flammable gases. Flammable cryogenic materials. Any liquid under emergency conditions containing more than 0.5% by volume of a flammable solvent are rated by the closed cup flash point of the solvent. Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and will burn readily. Flammable gases. Flammable cryogenic materials. Any liquid or gaseous materials that are liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 4 Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and will burn readily. Flammable gases. Flammable cryogenic materials. Any liquid or gaseous materials that are liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. INSTABILITY HAZARD: 0 Materials that in themselves are normally stable, even under fire conditions. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below or equal to 0.01 W/mL. Materials that do not exhibit an exotherm at temperatures less than or equal to 500°C (932°F) when tested by differential scanning calorimetry. Materials that in themselves are not stable, but that can become unstable at elevated temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 100 W/mL. Materials that readily undergo violent chemical change at elevated temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 1000 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. Materials that are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that must be heated under confinement before initiation: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 1000 W/mL. Materials that are capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) of 1000 W/mL or greater. Materials that are capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) of 1000 W/mL or greater. Materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures.

FLAMMABILITY LIMITS IN AIR:

Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point: Minimum temperature at which a liquid gives off sufficient vapor to form an ignitable mixture with air near the surface of the liquid or within the test vessel used. Autoignition Temperature: Minimum temperature of a solid, liquid, or gas required to initiate or cause self-sustained combustion in air with no other source of ignition. Lower Flammable Limit (LFL): Lowest concentration of a flammable vapor or gas/air mixture that will ignite and burn with a flame. TOXICOLOGICAL INFORMATION:

Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or other results of studies. Lethal Dose (solids & liquids) that kills 50% of the exposed animals. LC50: Lethal Concentration (gases) that kills 50% of the exposed animals. ppm: Concentration expressed in parts of material per million parts of air. mg/kg: Milligrams of material per kilogram of body weight. Log Kow: Coefficient of Oil/Water Distribution is used to assess a substance’s behavior in the environment. Median threshold limit. Log KOC: Coefficient of Oil/Water Distribution is used to assess a substance’s behavior in the environment. Other Information: BEI: ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as the worker as a health indicator. REGULATORY INFORMATION: