### **SAFETY DATA SHEETS**

# This SDS packet was issued with item:

076467294

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

076467104 076467112 076467120 076467138 076467146 076467153 076467161 076467237 076467245 076467252 076467260 076467278 076467286 076467377 076467385 076467401 076467419 076467427 076467435 076467443 076467450 076467468 076467476



#### MATERIAL SAFETY DATA SHEET

M.S.D.S. #00343 Page 1 of 2 May 07, 2010

#### 1. Chemical Product and Contact Information

**Product Name:** Build-It® Light Cure Core Material

**Material Safety Sheet Number:** 00343 Date of Issue: 07/17/09 Revision Date:

05/07/10 Company Identification: Pentron Clinical

1717 West Collins Ave. Orange, CA 92867

Phone: 800-551-0283 203-265-7397

800-424-9300 **Emergency Information Chemtrec:** Chemtrec International: 202-483-7616

#### 2. Composition/Information on Ingredients

Chemical characteristics: A non-BisGMA resin mixture of difunctional methacrylates of PHGMA, UDMA and TEGDMA, barium boro-silicate glass\*, nano-particulated silica, photoinitiator, accelerator, stabilizer, sodium fluoride, silane and pigments.

Communication Standard C29 CFR 1910.12007

\*Contains a small amount of Al2O3 Same as above This product contains no hazardous components as defined in OSHA Hazard

#### 3. Hazard Identification

Hazardous components:

Risk identification: Not available.

Special risks for human beings and environment: People known to be allergic to methacrylate should avoid use of this material.

Classification: Classification corresponds to actual EEC guidelines.

#### 4. First Aid Measures

General information:

Description:

After skin contact: Wash with plenty of water and soap. Rinse with water and consult a physician. After eye contact: After swallowing: Seek medical attention immediately.

#### 5. Fire Fighting Measures

Extinguishing media: CO2, water. Protective equipment: Unknown.

### 6. Accidental Release Measures

Personal precautions: Protective gloves, goggles and others are recommended. Environmental precautions: Unknown

Wipe up with absorbent material and place in waste container for disposal. Methods for cleaning up: Additional information: Unknown.

### 7. Handling and Storage

Storage: Store at ambient temperature. Protect from light source. Do not store in high heat areas. Store away from foodstuffs.

#### 8. Exposure Controls/Personal Protection

Personal protective equipment: Protective gloves, goggles are recommended.

General measure of protection and hygiene: Normal hygienic measures. Respiration:

Not applicable.

Hands: Protective gloves. Safety goggles recommended. Eyes:



Appearance:

### MATERIAL SAFETY DATA SHEET

M.S.D.S. #00343 Page 2 of 2 May 07, 2010

9. Physical and Chemical Properties

Form: Color:

Viscous paste Untinted or tinted. Slight ester-like odor.

Odor:

Information on change in the physical state

Melting point/melting range:

Boiling point/boiling range: Flash point:

Not applicable. Not applicable.

Autoignition temperature: Danger of explosion:

Not applicable. Not applicable. Not likely.

Density: Vapor pressure:

c.a. ~1.9 g/cm3 Not applicable. Paste.

Viscosity: pH: Solubility in/miscibility with water:

Not applicable. Not applicable.

Content of solvents: Organic solvents: Water:

Not applicable. Not applicable. Not applicable.

Not available.

Vac Not available.

Irritating.

Not volatile.

Not available.

Not available.

Not available.

Not regulated.

Not available.

Non-mutangenic.

Possibly toxic when swallowed.

Allergic reaction to methacrylate by exposure to product is possible.

Dispose in accordance with local, state, and federal regulations.

No classification necessary to actual EEC guidelines.

>70%

Content of solids:

Stable. Avoid heat, direct sunlight.

10. Stability and Reactivity Incompatibility with other substances:

Avoid peroxides, strong oxidizers, reducing agents and free radical initiators. Not applicable.

Hazardous discomposition products:

11. Toxicological Information Acute toxicity:

Primary irritation:

Skin Contact:

Skin absorption: Eye: Inhalation:

Ingestion: Sensitization of product:

Additional Toxicological information:

12. Ecological Information General information: Classification of water endangerment:

13. Disposal Considerations

Product Recommendation: Disposal key number: Uncleaned packaging:

Recommendation:

14. Transport Information RID/ADR:

15. Regulatory information

Classification according to EEC guidelines: National Prescriptions:

Classification according to VbF:

Not applicable.

16. Other Information

The information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof. Pentron Clincial however, makes no representations as to the completeness or accuracy of this information and supplies it on the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Pentron Clinical be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information.

NO REPRESENTATIONS OR WARRANTIES. EITHER EXPRESS OR IMPLIED. OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS

# SAFETY DATA SHEET

Build-It® FR™ Core Build-up Material

## **Section 1. Identification**

**GHS** product identifier

: Build-It® FR™ Core Build-up Material

Other means of identification

: Not available.

Product type

: Paste.

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

Product use : Dental product (Kit)

Area of application : Professional applications.

Manufacturer : Pentron Clinical

1717 West Collins Avenue Orange, CA 92867-5422

Telephone no.: 1-203-265-7397, Toll Free: 1-800-551-0283

e-mail address of person responsible for this SDS

: edwin.varela@kavokerrgroup.com

Emergency telephone number (with hours of operation)

f

: CHEMTREC® (24 hours) U.S.: 1-800-424-9300 International: +1-703-527-3887

# Section 2. Hazards identification

**OSHA/HCS** status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

: SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1

TOXIC TO REPRODUCTION (Fertility) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 89.8%

**GHS** label elements

Hazard pictograms :





Signal word : Warning

**Hazard statements** : Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction. Suspected of damaging fertility. May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements** 

Date of issue/Date of revision : 03/13/2014 Date of previous issue : No previous validation Version : 1 1/11

# Section 2. Hazards identification

#### **Prevention**

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

#### Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up.

**Disposal** 

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

: None known.

# Section 3. Composition/information on ingredients

Substance/mixture

Other means of identification

: Mixture: Not available.

#### **CAS** number/other identifiers

CAS number : Not applicable.

Product code : Not available.

Ingredient name	Other names	%	CAS number
(1-methylethylidene)bis[4,1-phenyleneoxy (2-hydroxy-3,1-propanediyl)] bismethacrylate	(1-methylethylidene)bis[4, 1-phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	10 - 30	1565-94-2
1,6-hexanediyl bismethacrylate	1,6-hexanediyl bismethacrylate	10 - 30	6606-59-3
Frits, chemicals diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Frits, chemicals	1 - 5 0.5 - 1.5	65997-18-4 75980-60-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

### Section 4. First aid measures

#### **Description of necessary first aid measures**

**Eye contact** 

: No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

Inhalation

: No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Skin contact

: No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.

Date of issue/Date of revision: 03/13/2014Date of previous issue: No previous validationVersion: 1

### Section 4. First aid measures

### Ingestion

: Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Get medical attention if adverse health effects persist or are severe.

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

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

: May cause respiratory irritation. Exposure to decomposition products may cause a Inhalation

health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Irritating to mouth, throat and stomach.

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:

> pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact : Adverse symptoms may include the following:

> irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

> reduced fetal weight increase in fetal deaths skeletal malformations

#### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. **Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

#### See toxicological information (Section 11)

# Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing

: In case of fire, use water, dry chemical powder or carbon dioxide.

**Unsuitable extinguishing** 

media

media

: Do not use water jet.

Date of issue/Date of revision : 03/13/2014 Date of previous issue : No previous validation Version :1 3/11

# Section 5. Fire-fighting measures

#### Specific hazards arising from the chemical

: No specific fire or explosion hazard.

metal oxide/oxides

#### **Hazardous thermal** decomposition products

: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides

#### Special protective actions for fire-fighters

: In case of major fire and large quantities: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

#### **Special protective** equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely.

For emergency responders: Low release. See also the information in "For non-emergency personnel".

#### **Environmental precautions**

: Low release. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

#### Methods and materials for containment and cleaning up

**Small spill** 

: Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

Large spill

Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

# Section 7. Handling and storage

#### **Precautions for safe handling**

**Protective measures** 

: No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Put on appropriate personal protective equipment (see Section 8). Handle with care and dispose in a safe manner.

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Date of issue/Date of revision

: 03/13/2014

Date of previous issue

: No previous validation

Version :1

# Section 8. Exposure controls/personal protection

#### **Control parameters**

Occupational exposure limits

None.

# Appropriate engineering controls

: No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

# **Environmental exposure** controls

: No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### **Individual protection measures**

#### **Hygiene measures**

: No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

# Skin protection Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

#### **Body protection**

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### **Respiratory protection**

: No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Date of issue/Date of revision

: 03/13/2014

Date of previous issue

: No previous validation

Version :1

# Section 9. Physical and chemical properties

**Appearance** 

Physical state : Paste.

Color : Base: Various

Catalyst.: White.

Odor threshold : Fruity./Ester.

Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Not available.

Flash point : Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive : Not available.

(flammable) limits

Vapor pressure: Not available.Vapor density: Not available.Relative density: Not available.

**Solubility** : Insoluble in the following materials: cold water and hot water.

Solubility in water : Not available.

Partition coefficient: n- : Not available.

octanol/water

Auto-ignition temperature: Not available.Decomposition temperature: Not available.SADT: Not available.Viscosity: Not available.Density: 1.7 g/cm³

Physical/chemical : Content (%) (solids): >=65

properties comments

# Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Long term: Polymerization.

**Conditions to avoid** : Protect from sunlight. Initiators. Avoid excessive heat.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and reducing

materials. Peroxide. Amines.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should

not be produced.

Date of issue/Date of revision: 03/13/2014Date of previous issue: No previous validationVersion: 1

# Section 11. Toxicological information

### Information on toxicological effects

#### **Acute toxicity**

Not available.

#### **Irritation/Corrosion**

Not available.

#### **Sensitization**

Not available.

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### Reproductive toxicity

Not available.

#### **Teratogenicity**

Not available.

#### Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
1,6-hexanediyl bismethacrylate	Category 3	'''	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
Frits, chemicals	Category 2	Not determined	Not determined

#### **Aspiration hazard**

Not available.

### Information on the likely routes of exposure

: Routes of entry anticipated: Dermal, Inhalation.

#### Potential acute health effects

**Eye contact** 

: Causes serious eye irritation.

Inhalation

May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact

: Causes skin irritation. May cause an allergic skin reaction.

Ingestion

: Irritating to mouth, throat and stomach.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** 

: Adverse symptoms may include the following: pain or irritation

watering redness

Date of issue/Date of revision : 03/13/2014 Date of previous issue : No previous validation

Version :1

# Section 11. Toxicological information

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

reduced fetal weight increase in fetal deaths skeletal malformations

**Skin contact**: Adverse symptoms may include the following:

irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations

**Ingestion**: Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

#### Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

**Long term exposure** 

Potential immediate

effects

: Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once

sensitized, a severe allergic reaction may occur when subsequently exposed to very low

levels.

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Route	ATE value
Oral	3449 mg/kg

Date of issue/Date of revision : 03/13/2014 Date of previous issue : No previous validation Version : 1 8/11

# Section 12. Ecological information

#### **Toxicity**

Not available.

#### Persistence and degradability

Not available.

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Frits, chemicals	-	5613	high
diphenyl(2,4,	-	53 to 72	low
6-trimethylbenzoyl)phosphine			
oxide			

#### **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

# Section 13. Disposal considerations

**Disposal methods** 

: This material and its container must be disposed of in a safe way.

# **Section 14. Transport information**

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to Annex II of MARPOL

73/78 and the IBC Code

Date of issue/Date of revision : 03/13/2014 Date of previous issue : No previous validation Version :1 9/11

# **Section 15. Regulatory information**

: United States inventory (TSCA 8b): Not determined. **U.S. Federal regulations** 

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)**  : Listed

Clean Air Act Section 602 **Class I Substances** 

: Not listed

**Clean Air Act Section 602 Class II Substances** 

: Not listed

**DEA List I Chemicals** 

: Not listed

(Precursor Chemicals)

**DEA List II Chemicals** (Essential Chemicals)

: Not listed

#### **SARA 302/304**

#### **Composition/information on ingredients**

No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312** 

Classification : Immediate (acute) health hazard

Delayed (chronic) health hazard

#### **Composition/information on ingredients**

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
(1-methylethylidene)bis[4, 1-phenyleneoxy(2-hydroxy-3, 1-propanediyl)] bismethacrylate	10 - 30	No.	No.	No.	Yes.	No.
1,6-hexanediyl bismethacrylate Frits, chemicals diphenyl(2,4,6-trimethylbenzoyl)	10 - 30 1 - 5 0.5 - 1.5	No. No. No.	No. No. No.	Yes. No. No.	Yes. No. No.	No. Yes. Yes.
phosphine oxide						

#### **SARA 313**

Not applicable.

#### **State regulations**

**Massachusetts** : The following components are listed: MINERAL WOOL FIBER

**New York** : None of the components are listed. **New Jersey** : None of the components are listed. : None of the components are listed. **Pennsylvania** 

California Prop. 65

None of the components are listed.

### Section 16. Other information

#### **Hazardous Material Information System (U.S.A.)**



Date of issue/Date of revision : 03/13/2014 Date of previous issue : No previous validation Version :1 10/11

# Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

#### **History**

Date of issue/Date of

revision

: 03/13/2014

Date of previous issue

: No previous validation

Version
Prepared by

: 1 : IHS

**Key to abbreviations** 

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

References

: HCS (U.S.A.)- Hazard Communication Standard

International transport regulations

Indicates information that has changed from previously issued version.

#### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot quarantee that these are the only hazards that exist.

Date of issue/Date of revision

: 03/13/2014

Date of previous issue

: No previous validation

Version : 1