

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 04/03/2018

1 Identification

- **Product identifier**
- **Trade name:** Hi-Tech Spall FX2 "B"
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Progressive Fastening Systems Inc.
Hi-Tech Systems
1190 N. Del Rio Place
Ontario, CA 91764
- **Information department:** Product Safety Department
- **Emergency telephone number:**

Phone (909) 945-5530
Fax (909) 945-3009
www.hitechpolyurea.com

INFOTRAC (24 HOURS) USA 1-800-535-5053 / INTERNATIONAL 1-352-323-3500 USE ONLY FOR HAZARDOUS MATERIALS (OR DANGEROUS GOODS) INCIDENT - SPILLS, LEAKS, FIRE, EXPOSURE, OR ACCIDENT CN109479

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

- Muta. 1B H340 May cause genetic defects.
Carc. 1A H350 May cause cancer.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
-
- Flam. Liq. 4 H227 Combustible liquid.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Solvent naphtha (petroleum), heavy arom.
naphthalene
benzene
- **Hazard statements**
Combustible liquid.
May cause genetic defects.
May cause cancer.
May be fatal if swallowed and enters airways.
- **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from flames and hot surfaces. – No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Immediately call a poison center/doctor.

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Do NOT induce vomiting.

IF exposed or concerned: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = *0

Fire = 2

Reactivity = 0

· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**· **Description:** Mixture of the substances listed below with nonhazardous additions.· **Dangerous components:**

64742-94-5	Solvent naphtha (petroleum), heavy arom. ⚠ Asp. Tox. 1, H304	>25-≤50%
91-20-3	naphthalene ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302; Flam. Liq. 4, H227	>2.5-<10%
71-43-2	benzene ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 1, H310; ⚠ Muta. 1B, H340; Carc. 1A, H350; STOT RE 1, H372; Asp. Tox. 1, H304; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≥0.1-≤2.5%

4 First-aid measures

· **Description of first aid measures**· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Generally the product does not irritate the skin.· **After eye contact:** Rinse opened eye for at least 15 minutes under running water.· **After swallowing:**

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if victim is unconscious or having convulsions. If symptoms persist consult doctor.

· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed** No further relevant information available.· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** water spray, dry powder, carbon dioxide, foam
- **Special hazards arising from the substance or mixture**
Hazards during fire-fighting:
 nitrous gases, fumes/smoke, isocyanate, vapour
- **Advice for firefighters**
- **Protective equipment:**
Firefighters should be equipped with self-contained breathing apparatus and turn out gear.
- **Additional information**
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**
Dispose of the collected material according to regulations.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

102-60-3	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	34 mg/m ³
91-20-3	naphthalene	15 ppm
1344-28-1	aluminium oxide	15 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³
71-43-2	benzene	52 ppm

- **PAC-2:**

102-60-3	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	370 mg/m ³
91-20-3	naphthalene	83 ppm
1344-28-1	aluminium oxide	170 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³
71-43-2	benzene	800 ppm

- **PAC-3:**

102-60-3	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	2,200 mg/m ³
91-20-3	naphthalene	500 ppm
1344-28-1	aluminium oxide	990 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³
71-43-2	benzene	4000* ppm

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7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Ensure thorough ventilation of stores and work area. Protect against moisture.

Ensure good ventilation/exhaustion at the workplace. Avoid aerosol formation. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gastight. Protect against moisture. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

- **Conditions for safe storage, including any incompatibilities**

Segregate from foods and animal feeds. Segregate from acids and bases.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Carbon Steel, (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE)

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** Keep receptacle tightly sealed.

- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

91-20-3 naphthalene

PEL Long-term value: 50 mg/m³, 10 ppm

REL Short-term value: 75 mg/m³, 15 ppm
Long-term value: 50 mg/m³, 10 ppm

TLV Long-term value: 52 mg/m³, 10 ppm
Skin; BEI

71-43-2 benzene

PEL Short-term value: 15* mg/m³, 5* ppm
Long-term value: 3* mg/m³, 1* ppm
*table Z-2 for exclusions in 29CFR1910.1028(d)

REL Short-term value: 1 ppm
Long-term value: 0.1 ppm
See Pocket Guide App. A

TLV Short-term value: 8 mg/m³, 2.5 ppm
Long-term value: 1.6 mg/m³, 0.5 ppm
Skin; BEI

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· **Ingredients with biological limit values:**

71-43-2 benzene

BEI	25 µg/g creatinine Medium: urine Time: end of shift Parameter: S-Phenylmercapturic acid (background)
	500 µg/g creatinine Medium: urine Time: end of shift Parameter: t,t-Muconic acid (background)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

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· Color:	clear to slight cloudy
· Odor:	of hydrocarbons
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	200 °C (392 °F)
· Flash point:	61 °C (141.8 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	540 °C (1,004 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Not determined.
· Explosion limits:	
Lower:	Not determined.
Upper:	5.9 Vol %
· Vapor pressure:	Not determined.
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.9 %
VOC content:	0.91 %
	9.1 g/l / 0.08 lb/gl
· Solids content:	96.4 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.
 Exothermic reaction. Reacts with strong acids and alkalis. Reacts with oxidizing agents.

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- **Conditions to avoid**
Temperature < 0 degrees Celsius
Avoid moisture
- **Incompatible materials:**
acids, oxidizing agents, isocyanates
acids, amines, alcohols, water, Alkalines, strong bases, Products that react with isocyanates
- **Hazardous decomposition products:**
Nitrogen oxides
Carbon monoxide
Carbon dioxide
Hydrogen cyanide (prussic acid)
aromatic isocyanates, gases/vapours
carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)		
Oral	LD50	17,966 mg/kg (rat)
Dermal	LD50	183,332 mg/kg (rat)

- **91-20-3 naphthalene**

Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rat)

- **71-43-2 benzene**

Oral	LD50	4,894 mg/kg (rat)
Dermal	LD50	48 mg/kg (mouse)
Inhalative	LC50/4 h	9,980 mg/l (mouse)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
The product can cause inheritable damage.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

91-20-3	naphthalene	2B
7631-86-9	silicon dioxide, chemically prepared	3
71-43-2	benzene	1

- **NTP (National Toxicology Program)**

91-20-3	naphthalene	R
71-43-2	benzene	K

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· **OSHA-Ca (Occupational Safety & Health Administration)**

71-43-2 benzene

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
*Water hazard class 3 (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
 Incinerate in a licensed facility. Dispose of in a licensed facility. Do not discharge substance/product into sewer system.*
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number · DOT · IMDG, IATA | <p>not regulated
UN3082</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA | <p>not regulated
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (NAPHTHALENE, CRUDE), MARINE POLLUTANT
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (NAPHTHALENE, CRUDE)</p> |

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· **Transport hazard class(es)**

· **DOT**· **Class** not regulated

· **IMDG, IATA**

· **Class**

9 Miscellaneous dangerous substances and articles

· **Label**

9

· **Packing group**

· **DOT**

not regulated

· **IMDG, IATA**

III

· **Environmental hazards:**

Product contains environmentally hazardous substances:
naphthalene

· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles

· **Danger code (Kemler):**

90

· **EMS Number:**

F-A,S-F

· **Stowage Category**

A

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES,
LIQUID, N.O.S. (NAPHTHALENE, CRUDE), 9, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

91-20-3 naphthalene

1344-28-1 aluminium oxide

71-43-2 benzene

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

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· **Proposition 65**· **Chemicals known to cause cancer:**

91-20-3 naphthalene

71-43-2 benzene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

71-43-2 benzene

· **Chemicals known to cause developmental toxicity:**

71-43-2 benzene

· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

91-20-3 naphthalene

C, CBD

71-43-2 benzene

A, K/L

· **TLV (Threshold Limit Value established by ACGIH)**

91-20-3 naphthalene

A4

1344-28-1 aluminium oxide

A4

71-43-2 benzene

A1

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

71-43-2 benzene

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).· **Hazard pictograms**

GHS08

· **Signal word** Danger· **Hazard-determining components of labeling:**

Solvent naphtha (petroleum), heavy arom.

naphthalene

benzene

· **Hazard statements**

Combustible liquid.

May cause genetic defects.

May cause cancer.

May be fatal if swallowed and enters airways.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. – No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Do NOT induce vomiting.

IF exposed or concerned: Get medical advice/attention.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.

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Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:** Safety Department

· **Date of preparation / last revision** 04/09/2018 / 3

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 1: Acute toxicity – Category 1

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1A: Carcinogenicity – Category 1A

Carc. 2: Carcinogenicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Asp. Tox. 1: Aspiration hazard – Category 1

· *** Data compared to the previous version altered.**