

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

## 1 Identification

· **Product identifier**

· **Trade name:** Hi Tech Spall RX2 A

· **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

Phone (909) 945-5530

Fax (909) 945-3009

www.hitechpolyurea.com

· **Information department:** Product Safety Department

· **Emergency telephone number:**

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

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

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**



GHS07



GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

diphenylmethanediisocyanate, isomers and homologues

4,4'-methylenediphenyl diisocyanate

naphthalene

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

**Trade name: Hi Tech Spall RX2 A**

(Contd. of page 1)

· **Hazard statements**

Combustible liquid.  
 Harmful if inhaled.  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 May cause an allergic skin reaction.  
 Suspected of causing cancer.  
 May cause respiratory irritation.  
 May cause damage to organs through prolonged or repeated exposure.  
 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.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wash thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 [In case of inadequate ventilation] wear respiratory protection.  
 If swallowed: Immediately call a poison center/doctor.  
 Specific treatment (see on this label).  
 Do NOT induce vomiting.  
 If on skin: Wash with plenty of water.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 IF exposed or concerned: Get medical advice/attention.  
 Call a poison center/doctor if you feel unwell.  
 Get medical advice/attention if you feel unwell.  
 Take off contaminated clothing and wash it before reuse.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 If experiencing respiratory symptoms: Call a poison center/doctor.  
 Wash contaminated clothing before reuse.  
 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
 Store in a well-ventilated place. Keep container tightly closed.  
 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)**



· **HMIS-ratings (scale 0 - 4)**



(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: **Hi Tech Spall RX2 A**

(Contd. of page 2)

- **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:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	>25-≤50%
101-68-8	4,4'-methylenediphenyl diisocyanate ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	>25-≤50%
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	≥0.1-≤2.5%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Materials containing MDI may react with the moisture in the eye forming a thick material that is difficult to remove.  
Rinse opened eye for 15 minutes under running water. If symptoms persist, consult a doctor.
- **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.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** water spray, dry powder, carbon dioxide, foam

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: **Hi Tech Spall RX2 A**

(Contd. of page 3)

- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.  
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**  
At temperatures greater than 400° F, polymeric MDI can polymerize and decompose which will cause pressure build-up in closed containers. Explosive rupture is possible. Water contamination will produce carbon dioxide.  
Do not reseal contaminated containers.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
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:

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	0.15 mg/m <sup>3</sup>
101-68-8	4,4'-methylenediphenyl diisocyanate	0.45 mg/m <sup>3</sup>
91-20-3	naphthalene	15 ppm

### · PAC-2:

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3.6 mg/m <sup>3</sup>
101-68-8	4,4'-methylenediphenyl diisocyanate	5 mg/m <sup>3</sup>
91-20-3	naphthalene	83 ppm

### · PAC-3:

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	22 mg/m <sup>3</sup>
101-68-8	4,4'-methylenediphenyl diisocyanate	55 mg/m <sup>3</sup>
91-20-3	naphthalene	500 ppm

## 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 busting 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.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

**Trade name: Hi Tech Spall RX2 A**

(Contd. of page 4)

- Open and handle receptacle with care.
- Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Keep respiratory protective device available.
- **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:**
    - When stored between 60- 80 ° F in sealed containers, typical shelf life is 12 months from the date of manufacture.
    - 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:**
  - MDI has a low vapor pressure at room temperature. Monitoring is required to determine engineering controls.
- **Control parameters**

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

**101-68-8 4,4'-methylenediphenyl diisocyanate**

PEL	Ceiling limit value: 0.2 mg/m <sup>3</sup> , 0.02 ppm
REL	Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm Ceiling limit value: 0.2* mg/m <sup>3</sup> , 0.02* ppm *10-min
TLV	Long-term value: 0.051 mg/m <sup>3</sup> , 0.005 ppm

**91-20-3 naphthalene**

PEL	Long-term value: 50 mg/m <sup>3</sup> , 10 ppm
REL	Short-term value: 75 mg/m <sup>3</sup> , 15 ppm Long-term value: 50 mg/m <sup>3</sup> , 10 ppm
TLV	Long-term value: 52 mg/m <sup>3</sup> , 10 ppm Skin; BEI

- **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.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Store protective clothing separately.
  - Avoid contact with the eyes and skin.
- **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.

(Contd. on page 6)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: Hi Tech Spall RX2 A

(Contd. of page 5)

· **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:**

Face protection



Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Non-pigmented liquid
<b>Odor:</b>	Musty
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	207.8 °C (406 °F)

· **Flash point:** 66 °C (150.8 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 400 °C (752 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: Hi Tech Spall RX2 A

(Contd. of page 6)

· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not Soluble in water; REACTS with water
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gl
<b>Solids content:</b>	97.7 %
· <b>Other information</b>	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 alkalies. Reacts with oxidizing agents.
- **Conditions to avoid** Moisture and/or water. High temperatures, sparks, flame and temperature above 350 °F
- **Incompatible materials:**  
Water; strong bases; alcohols; amines; metal compounds;  
acids, amines, alcohols, water, Alkalines, strong bases, Products that react with isocyanates
- **Hazardous decomposition products:**  
By fire or excessive heat: carbon monoxide, carbon dioxide, oxides of nitrogen, traces of hydrogen cyanide, ammonia and MDI vapors.  
aromatic isocyanates, gases/vapours  
carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide
- **Additional information:**  
May occur with incompatible reactants, especially strong bases, water or temperatures over 320°F (50°C).

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

### ATE (Acute Toxicity Estimate)

Oral	LD50	6,080 mg/kg
Dermal	LD50	217,495 mg/kg (rat)
Inhalative	LC50/4 h	15.3 mg/l

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: Hi Tech Spall RX2 A

(Contd. of page 7)

**101-68-8 4,4'-methylenediphenyl diisocyanate**

Oral LD50 2,200 mg/kg (mouse)

**91-20-3 naphthalene**

Oral LD50 490 mg/kg (rat)

Dermal LD50 5,000 mg/kg (rat)

· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** Irritating effect.· **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

3

101-68-8 4,4'-methylenediphenyl diisocyanate

3

91-20-3 naphthalene

2B

· **NTP (National Toxicology Program)**

91-20-3 naphthalene

R

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

None of the ingredients is listed.

## 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 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even 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.

US

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: Hi Tech Spall RX2 A

(Contd. of page 8)

## 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

- |                                                                                  |                        |
|----------------------------------------------------------------------------------|------------------------|
| · <b>UN-Number</b>                                                               |                        |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    | <i>not regulated</i>   |
| · <b>UN proper shipping name</b>                                                 |                        |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    | <i>not regulated</i>   |
| · <b>Transport hazard class(es)</b>                                              |                        |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    |                        |
| · <b>Class</b>                                                                   | <i>not regulated</i>   |
| · <b>Packing group</b>                                                           |                        |
| · <b>DOT, IMDG, IATA</b>                                                         | <i>not regulated</i>   |
| · <b>Environmental hazards:</b>                                                  | <i>Not applicable.</i> |
| · <b>Special precautions for user</b>                                            | <i>Not applicable.</i> |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | <i>Not applicable.</i> |
| · <b>UN "Model Regulation":</b>                                                  | <i>not regulated</i>   |

## 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):**

9016-87-9 *diphenylmethanediisocyanate, isomeres and homologues*

101-68-8 *4,4'-methylenediphenyl diisocyanate*

91-20-3 *naphthalene*

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

*All ingredients are listed.*

· **Proposition 65**

· **Chemicals known to cause cancer:**

91-20-3 *naphthalene*

(Contd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: **Hi Tech Spall RX2 A**

(Contd. of page 9)

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	CBD
101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD
91-20-3	naphthalene	C, CBD

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

91-20-3	naphthalene	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

diphenylmethanediisocyanate, isomeres and homologues

4,4'-methylenediphenyl diisocyanate

naphthalene

· **Hazard statements**

Combustible liquid.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

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.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

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

[In case of inadequate ventilation] wear respiratory protection.

(Contd. on page 11)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

**Trade name: Hi Tech Spall RX2 A**

(Contd. of page 10)

*If swallowed: Immediately call a poison center/doctor.  
Specific treatment (see on this label).  
Do NOT induce vomiting.  
If on skin: Wash with plenty of water.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
IF exposed or concerned: Get medical advice/attention.  
Call a poison center/doctor if you feel unwell.  
Get medical advice/attention if you feel unwell.  
Take off contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
If experiencing respiratory symptoms: Call a poison center/doctor.  
Wash contaminated clothing before reuse.  
In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **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 / 1
- **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
  - Flam. Liq. 4: Flammable liquids – Category 4
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  - Resp. Sens. 1: Respiratory sensitisation – Category 1
  - Skin Sens. 1: Skin sensitisation – Category 1
  - Carc. 2: Carcinogenicity – Category 2
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

(Contd. on page 12)

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 04/09/2018

Reviewed on 03/30/2018

**Trade name: Hi Tech Spall RX2 A**

*STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*

*Asp. Tox. 1: Aspiration hazard – Category 1*

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

(Contd. of page 11)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

## 1 Identification

- **Product identifier**
- **Trade name:** Hi-Tech Spall RX2 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

- Carc. 2 H351 Suspected of causing 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
- **Hazard statements**  
 Combustible liquid.  
 Suspected of causing 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.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

**Trade name: Hi-Tech Spall RX2 B**

(Contd. of page 1)

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)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	2	Fire = 2
REACTIVITY	0	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	>50-≤100%
91-20-3	naphthalene ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302; Flam. Liq. 4, H227	>2.5-<10%

### 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.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Dry powder, foam, carbon dioxide. Use cold water spray to cool fire exposed containers to minimize risk of rupture. A solid stream of water directed into hot burning liquid could cause frothing.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

**Trade name: Hi-Tech Spall RX2 B**

(Contd. of page 2)

- 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:** Prevent seepage into sewage system, workpits and cellars.
- **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**

· <b>PAC-1:</b>		
102-60-3	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	34 mg/m <sup>3</sup>
91-20-3	naphthalene	15 ppm
· <b>PAC-2:</b>		
102-60-3	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	370 mg/m <sup>3</sup>
91-20-3	naphthalene	83 ppm
· <b>PAC-3:</b>		
102-60-3	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	2,200 mg/m <sup>3</sup>
91-20-3	naphthalene	500 ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure thorough ventilation of stores and work area. Protect against moisture.
- **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:**  
When stored between 60-80°F in sealed containers, typical shelf life is 12 months from the date of manufacture.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: **Hi-Tech Spall RX2 B**

(Contd. of page 3)

· **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/m <sup>3</sup> , 10 ppm
REL	Short-term value: 75 mg/m <sup>3</sup> , 15 ppm Long-term value: 50 mg/m <sup>3</sup> , 10 ppm
TLV	Long-term value: 52 mg/m <sup>3</sup> , 10 ppm Skin; BEI

· **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.

· **Breathing equipment:** Not required.· **Protection of hands:**

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:** Goggles recommended during refilling.· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:** Non-Pigmented liquid· **Form:** Liquid· **Color:** Non-pigmented liquid· **Odor:** Mild· **Odor threshold:** Not determined.· **pH-value:** Not determined.· **Change in condition**· **Melting point/Melting range:** Undetermined.

(Contd. on page 5)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: **Hi-Tech Spall RX2 B**

(Contd. of page 4)

<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	79 °C (174.2 °F)
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	540 °C (1,004 °F)
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Not determined.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gl
· <b>Other information</b>	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 alkalies. Reacts with oxidizing agents.
- **Conditions to avoid** Avoid moisture
- **Incompatible materials:**  
acids, amines, alcohols, water, Alkalines, strong bases, Products that react with isocyanates
- **Hazardous decomposition products:**  
aromatic isocyanates, gases/vapours  
carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide

US

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: **Hi-Tech Spall RX2 B**

(Contd. of page 5)

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

### ATE (Acute Toxicity Estimate)

Oral	LD50	8,190 mg/kg (rat)
Dermal	LD50	83,572 mg/kg (rat)

### 91-20-3 naphthalene

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

- **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:

- **Carcinogenic categories**

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

91-20-3	naphthalene	2B
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- **NTP (National Toxicology Program)**

91-20-3	naphthalene	R
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- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 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:** Not known to be hazardous to water.
- **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.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018


Reviewed on 03/30/2018

Trade name: **Hi-Tech Spall RX2 B**

(Contd. of page 6)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p style="text-align: center;"><i>not regulated</i></p> <p>UN3082</p>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	<p style="text-align: center;"><i>not regulated</i></p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHALENE, CRUDE), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHALENE, CRUDE)</p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> <li>· <b>Class</b></li> </ul>	<p style="text-align: center;"><i>not regulated</i></p>
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	<div style="display: flex; align-items: center; justify-content: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>9 Miscellaneous dangerous substances and articles</p> <p>9</p>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p style="text-align: center;"><i>not regulated</i></p> <p>III</p>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	<p>Product contains environmentally hazardous substances: naphthalene</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Danger code (Kemler):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul>	<p>Warning: Miscellaneous dangerous substances and articles</p> <p>90</p> <p>F-A,S-F</p> <p>A</p>
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	<p style="text-align: center;"><i>Not applicable.</i></p>
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

Trade name: **Hi-Tech Spall RX2 B**

(Contd. of page 7)

· **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

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

91-20-3 naphthalene

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

91-20-3 naphthalene

C, CBD

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

91-20-3 naphthalene

A4

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

None of the ingredients is listed.

- **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

· **Hazard statements**

Combustible liquid.  
Suspected of causing cancer.  
May be fatal if swallowed and enters airways.

(Contd. on page 9)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 04/09/2018

Reviewed on 03/30/2018

**Trade name: Hi-Tech Spall RX2 B**

(Contd. of page 8)

· **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.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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 / 2

· **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

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Carc. 2: Carcinogenicity – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

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