

## SAFETY DATA SHEET

FR704 Adhesion Promoter ( Single Component Material )

### SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Supplier	Star International, Star House, Turbine Business Park, Turbine Road, Birkenhead, Merseyside, CH41 9BA
Contacts	T: +44 (0 ) 1244 504 500 E: enquiries@star-international.co.uk
Product Name:	FR 704 Adhesion Promoter
Product Use/Class:	Polyurethane Primer
Supersedes Previous Revision:	New ( 11.08.2018 )

### SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

**Classification under CHIP:** Xn: R20; Xi: R36/37/38; Xn: R40; Sens.: R42/43; Xn: R48/20

**Classification under CLP:** Carc. 2: H351; Acute Tox. 4: H332; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 2: H371

**Most important adverse effects:** Harmful by inhalation. Irritating to eyes, respiratory system and skin. Limited evidence of a carcinogenic effect. May cause sensitisation by inhalation and skin contact. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

#### Label elements under CLP:

##### Hazard statements:

H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335: May cause respiratory irritation  
H373: May cause damage to organs through prolonged or repeated exposure if inhaled.  
H351: Suspected of causing cancer <>.

EUH204: Contains Isocyanates. May produce an allergic reaction.

**Signal words:** Danger

**Hazard pictograms:** GHS07: Exclamation mark

GHS08: Health hazard



**Precautionary statements:** P260: Do not breathe.

P280: Wear. P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P304+341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P307+311: IF exposed: Call a POISON CENTRE or doctor. P308+313: IF exposed or concerned: Get medical attention.

#### Label elements under CHIP:

**Hazard symbols:** Harmful.



**Risk phrases:** R20: Harmful by inhalation.  
R36/37/38: Irritating to eyes, respiratory system and skin.  
R40: Limited evidence of a carcinogenic effect.  
R42/43: May cause sensitisation by inhalation and skin contact.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

**Safety phrases:** S23: Do not breathe fumes.

S36/37: Wear suitable protective clothing and gloves.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S63: In case of accident by inhalation, remove casualty to fresh air and keep at rest.

### SECTION 3 – HAZARDOUS IDENTIFICATION

**Hazardous ingredients:**

DIPHENYLMETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES)

EINECS CAS CHIP Classification CLP Classification Percent 9016-87-9 Xn: R20; Xi: R36/37/38; Xn: R40; Sens.: R42/43; Xn: R48/20. Carc. 2: H351; Acute Tox. 4: H332; EyeIrrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317; STOT SE 2: H371; STOT RE 2: H373 70-90%

Contains: **Diphenylmethane 4,4' Di-Isocyanate.**

### SECTION 4 – FIRST AID MEASURES

**FIRST AID**

*Eye contact:* Flush eyes immediately with large amounts of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

*Skin Contact:* Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

*Inhalation:* Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

*Ingestion:* If swallowed, do not induce vomiting. Give one or two glasses of water or milk. Call a physician or poison control centre immediately for further instructions. Never give anything by mouth to an unconscious person.

### SECTION 5 – FIRE FIGHTING MEASURES

**5.1. Extinguishing media**

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

**5.2. Special hazards arising from the substance or mixture**

**Exposure hazards:** In combustion emits toxic fumes.

**5.3. Advice for fire-fighters**

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** No special provisions are required or personal protection equipment. Wear sensible industrial clothing and launder after use. Do not empty into drains.

### SECTION 7 – HANDLING AND STORAGE

**HANDLING:** No specific handling precautions.

**STORAGE:** Store in well-ventilated areas. Do not puncture, drag or slide container.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### Workplace exposure limits: Respirable dust

State 8 hour TWA 15 min. STEL 8 hour TWA 15 min. STEL UK 0.002 mg/m<sup>3</sup> 0.007 mg/m<sup>3</sup> - -

**Hazardous ingredients: DIPHENYLMETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES)**

**ENGINEERING CONTROLS:** Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminate levels below recommended exposure limits.

**RESPIRATORY PROTECTION:** No specific recommendations made.

**SKIN PROTECTION:** Use neoprene, nitrile, or rubber gloves to prevent skin contact. Use long sleeves.

**EYE PROTECTION:** Use safety eye-wear including safety glasses with side shields and chemical goggles where splashing may occur.

**OTHER PROTECTIVE EQUIPMENT:** Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before re-use.

**HYGIENIC PRACTICES:** Wash hands thoroughly before eating, smoking or using the toilet facility. Do not smoke in any chemical handling or storage area. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Flash Point ( DIN 51755 )	> 200°C
Appearance	Translucent / Brownish
Physical State	Liquid
Odour	Characteristic odour : earthy, musty
Solubility in H <sub>2</sub> O	Reacts with water
Vapour Pressure	1hPa at 20°C
Vapour Density	Is heavier than air
Specific Gravity	1,23 g/cm <sup>3</sup>
PH	N.A.

## SECTION 10 – STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** High temperatures. Sources of ignition.

**HAZAROUS DECOMPOSITION PRODUCTS:** No hazardous decomposition when stored and handled correctly. Carbon dioxide, carbon monoxide are products of thermal decomposition. Exothermic reaction with amines and alcohols, react with water forming carbon dioxide (CO<sub>2</sub>).

**HAZAROUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## SECTION 11 – TOXICOLOGICAL PROPERTIES

**Hazardous ingredients: DIPHENYLMETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES)**

ORL RAT MALE LD50 > 10 000 mg/kg, SKN RBT LD50 >9400 mg/kg. OECD Test Guideline 401.

### Relevant effects for mixture:

Effect Route Basis, Acute toxicity (harmful) INH Hazardous: calculated

Irritation OPT INH DRM Hazardous: calculated

Sensitisation INH DRM Hazardous: calculated

Repeated dose toxicity INH Hazardous: calculated

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## SECTION 12 – ECOLOGICAL INFORMATION

Not regarded as dangerous to the environment. Avoid spillage into waterways and soil.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company. **NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## SECTION 14 – TRANSPORTATION INFORMATION

**Shipping name:** Not classified as hazardous under transport regulations. This product does not require a classification for transport. Keep separated from foodstuffs.

**Environmentally hazardous:** No

**Marine pollutant:** No

**Special precautions for user :** No special precautions.

Add:) ADR, AND, ADNR, IATA, IMDG : Not dangerous goods

Special precautions for user: Avoid temperatures below 0°C, Avoid heat above +50°C.

Keep dry, keep away from foodstuffs, acids and alkalines.

## SECTION 15 – REGULATORY INFORMATION

Polyurethane resins are defined as “ non-hazardous ” in the Chemicals Hazard Information and Packaging regulations ( CHIP, CLP ).

## SECTION 16 – OTHER INFORMATION

Full text of hazardous (H) warnings referred to under sections 2 and 3 of the CLP classification (1272/2008/CE).

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H335 May cause respiratory irritation

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

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**The product is intended for use by skilled or experienced personnel for the intended application as recommended by us.**

The information contained herein is based on data available to us and is believed to be correct. Since this information may have been obtained in part from independent laboratories or other sources not under our direct supervision, no representation is made that the information is accurate, reliable, complete or representative and the Buyer may rely thereon only at the Buyer's risk. We make no guarantee that the health and safety precautions we have suggested will be adequate for all individuals and/or situations involving its handling and use.

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