

## Sigraflex Hochdruck®



*Sigraflex Hochdruck® is a multi-layer sheet material comprising 0.5mm thick layers of high quality graphite foil and 0.5mm thick stainless steel foil. Depending on the sheet thickness required, several layers of graphite and stainless steel foil are joined together in a special process without the use of an adhesive. The result is a sealing material with outstanding mechanical properties.*

### CONTACTS



#### HEAD OFFICE

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### 1. PRODUCT IDENTIFICATION AND COMPANY

- 1.1. **Product name:** Sigraflex Hochdruck®
- 1.2. **Product use/ Application:** The material is designed for highly loaded joints such as tongue and groove gaskets and for high internal pressures (see on Data/specification sheet-Pressure/Temperature chart for guidelines Its high resistance to blow out makes the gasket a safe choice for hazardous applications.
- Applications:**
- \* For difficult and mechanically highly stressed sealed joints (in tongue-and-groove and flanges with special dimensions, process equipment, heat exchangers, etc.); also suitable for all common pipework and vessel flange designs;
  - \* For one-piece gasket designs up to an outside diameter of 1500mm; for diameters above 1500mm, for example two-layer structures with segmented sections and staggered joints are recommended;
  - \* For operating pressures from vacuum up to 250bar;
  - \* For corrosive media;
  - \* Operating temperatures range from - 250°C up to 450°C depending on chemical resistance, and possibly to 550°C after consulting the manufacturer. Life time might be limited by actual equipment temperatures and operating conditions. Please refer to our technical guidelines regarding thermal stability.
  - \* Chemical, petrochemical, refinery and nuclear industries;
  - \* Steam pipework and boilers in power generation plants;
  - \* Heat transfer oils and heating equipment;
  - \* Inspection glasses, pumps, fittings and valves;
  - \* Existing plants.

1.3. **Company identification:**

**Distributors and retailers:**

Novus Sealing Pty. Ltd.  
ADDRESS: 13-15 - Vinnicombe Drive, Canning Vale, WA, 6155  
Phone: +61 8 9455 2155 (8.30am to 5.00pm Monday to Friday)  
Fax: +61 8 9455 2165.

**Emergency email:**

mailbox.novussealing.com.au

**Emergency service contacts:**

Emergency service: 000.  
112 is available from all GSM or GSM derived mobile phones  
106 is text based service.

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## 2. HAZARD IDENTIFICATION

2.1.	<b>Statement Of Hazardous Nature:</b>	Based on available information, this material is not classified as hazardous according to criteria of NOHSC Australia. Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.
2.2.	<b>Poisons Schedule (Aust):</b>	Not applicable.
2.4.	<b>RISK phrases:</b>	Nil.
2.5.	<b>Safety information:</b>	
2.5.1.	<b>SAFETY phrases:</b>	<p>S22 Do not breathe dust. [During cutting, grinding or drilling, do not breathe dust].</p> <p>S15 Keep away from heat.</p> <p>S38 Use suitable respirator if dust exposure limits are exceeded during cutting, grinding or drilling.</p> <p>S41 In case of fire and or explosion, do not breathe fumes.</p>
2.5.2.	<b>Safe handling:</b>	<p>S37 Wear suitable gloves.</p> <p>S23 Avoid contact with eyes.</p> <p>S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.</p> <p><i>* [When removing a gasket from a pipe flange or elsewhere, it is recommended to use your PPE].</i></p> <p><i>[Any gasket, which is exposed to other hazardous substances onsite, you must wear PPE if handling it].</i></p> <p>R36/37/38 Irritating to eyes, respiratory system and skin.</p> <p><i>* [When you receive any customer sample gasket(s) to be manufactured, you must always wear gloves, safety glasses, and respiratory system, if handling them. These gaskets may have been exposed to hazardous substances or environment].</i></p>
2.6.	<b>Other hazard information:</b>	N/A
2.7.	<b>Label elements:</b>	Not applicable to this products.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1.	<b>Chemical characteristics:</b>	Product/material based on graphite with stainless steel sheet reinforcement and < 1 % hardened furan resin.
3.2.	<b>Hazardous ingredients:</b>	No ingredients classified hazardous acc. to 67/548/EEC.

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## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures:

**General information:** The materials used to produce this product present a low-level potential risk from dust inhalation. Local Exhaust Ventilation (LEV) can be used or respiratory protection if required.

4.2. <b>Inhalation:</b>	After inhalation of greater quantities of dust, take affected person to fresh air. (If dust occurs during machining).
4.3. <b>Skin contact:</b>	If skin, get irritated or itchy due dust, rinse immediately with plenty of water and seek medical help if there is no improvement.
4.4. <b>Eye contact:</b>	In case of contact with eyes, Rinse with plenty of water.
4.5. <b>Ingestion:</b>	N/A
4.6. <b>symptoms:</b>	N/A.
4.7. <b>Indications of immediate medical attention being required:</b>	N/A.

## 5. FIRE FIGHTING MEASURES

5.1. <b>General:</b>	N/A
5.2. <b>Extinguishing media:</b>	Form, sand, carbon dioxide, dry power, water spray jet. <i>Unsuitable extinguishing media, for safety reasons: Direct water spray.</i>
5.3. <b>Special hazards arising from the material:</b>	<b>its preparation, its products of combustion or formed gases:</b>  Dust may glow in oxygen-containing atmosphere above 350 °C. During glowing and in case of fire CO/CO <sub>2</sub> and small amounts of organic compounds are generated.
5.4. <b>Advise to fire fighters:</b>	None, in case of insufficient ventilation use respiration equipment (against CO/CO <sub>2</sub> ).

## 6. ACCIDENTAL RELEASE MEASURES

6.1. <b>Personal precautions:</b>	Spillage could create a slip hazard under foot-During the machine, cutting it will create spillage, which can cause a slip hazard under foot.  When removing a gasket from a pipe flange or elsewhere, It is recommended to use your PPE. * <i>[Any gasket, which is exposed to other hazardous substance onsite, you must wear PPE if handling it].</i>
6.2. <b>Environmental precautions:</b>	None.
6.3. <b>Cleaning up:</b>	Remove any dust generated by vacuum or damp cloth or Remove mechanically.  Clean up all debris / scrap material by using vacuum or use broom and dustpan clean the area. Wear a glove to remove bigger debris /scrap material piece.
6.4. <b>Additional information:</b>	None



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## 7. HANDLING AND STORAGE

7.1. Handling:	Gloves should be worn when handling these materials.
7.2. Fire:	Advice on protection against fire and explosion: None, if properly handled.
7.3. Conditions for safe storage:	Cool dry conditions.
7.4. Specific end uses:	Refer to appropriate technical data sheet.
7.5. Storage class:	Not Classified.
7.6. Advice on storage assembly:	None.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1. Measure for limitation and monitoring the exposure:	During machining and dust occurrence, take care for good ventilation resp. for suction of the area of activity.
8.2. Personal protective equipment:	
8.2.1. Respiratory protection:	Use suitable respirator if dust exposure limits are exceeded during cutting, grinding or drilling. Dust protective mask (P1), if dust occurs.
8.2.2. Hand protection:	Wear suitable gloves when handling material. <i>* [When removing a gasket from a pipe flange or elsewhere it is recommended to use your PPE].</i> <i>[Any gasket, which is exposed to other hazardous substance onsite, you must wear PPE if handling it].</i>
8.2.3. Eye protection:	Safety glasses, if dust occurs during machining. <i>* [When you receive any customer sample gasket(s) to be manufactured, you must always wear gloves, safety glass, respiratory system, if handling them. These gaskets may have been exposed to hazardous substances or environment].</i>
8.2.4. Personal protection:	
8.3. Engineering measures:	Recommend local exhaust ventilation when cutting, grinding machining or drilling operations involved.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties.

Physical state:	Solid.
Colour and appearance:	Grey/ black reflective.
<b>DATA RELEVANT TO SAFETY:</b>	
Boiling point/range:	Inapplicable.
Melting point/range of the metal:	Inapplicable.
Flash point:	Inapplicable.
Ignitability	Inapplicable.
Ignition temperature:	Inapplicable.
Self-ignitability:	None*.
Inflammable properties:	None.
Explosive risk:	None*.
Explosion Limits:	Upper : Inapplicable. Lower: Inapplicable.
Vapour pressure at 20 °C:	Inapplicable.
Relative density at 20 °C:	Inapplicable.
Solubility at 20 °C:	Inapplicable.
pH- value	4,5- 7.
Partition coefficient:	Inapplicable.
n-octanol/water Viscosity:	Inapplicable.
Additional information:	None
<b>Remarks: * if properly used and stored.</b>	

## 10. STABILITY AND REACTIVITY

10.1. Conditions to be avoided..	None.
10.3. Contact with substance to be avoided:	None.
10.4. Hazardous decomposition products:	Avoid excessive overheating.
10.5. Additional information:	Carbonisation of the hardened furan resin above 250 °C.

## 11. TOXICOLOGICAL INFORMATION

No toxicological data available.

## 12. ECOLOGICAL INFORMATION

No ecological data available.



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## 13. DISPOSAL CONSIDERATIONS

- 13.1. All waste should be disposed of in accordance with the requirements of Federal, State, Provincial and Local government. Consideration, should also be given to the potential for recycling or, if possible, by other environmentally friendly routes.

## 14. TRANSPORT INFORMATION

- 14.1. **Packaging:** Pack to prevent damage and liberation of any dust.
- 14.2. **Fright classification:** Not classified as dangerous goods .
- 14.3. **ADR number:** N/A.
- 14.4. **IMDG code:** N/A.
- 14.5. **Packing group:** N/A.
- 14.6. **Trem card:** N/A.
- 14.7. **UN number:** N/A.
- 14.8. **No special requirements.**

## 15. REGULATORY INFORMATION

- 15.1. **Regulatory information:** N/A.
- 15.2. **Safety information:**
- 15.2.1. **Safety phase:**
- S22 Do not breathe dust  
\* [During cutting, grinding, drilling or sanding, do not breathe dust].  
[Use suitable respirator, if dust exposure limits are exceeded during cutting, grinding or drilling and sanding].
- S15 Keep away from heat.
- S41 In case of fire and or explosion, don not breathe fumes.
- 15.2.2. **Safe handling:**
- S37 Wear suitable gloves.
- S23 Avoid contact with eyes.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection  
\* [When removing a gasket from a pipe flange or elsewhere, it is recommended to you to use your PPE, if handling it].  
[Any gasket, which is exposed to other substance onsite, you must wear PPE when handling it].

- 15.3. **Labelling according to EEC regulation: Code-letter and hazard-symbol for the product:**

No subject to mandatory marking.

**Hazardous ingredient(s) relevant for labelling :** None.

**R-phrases:** None.

Additional classification acc. to GefStoffV (D) Appendix II: None.

Regulation for handling restrictions: None.

Classification acc. To VbF ( D): None.

Technical guideline "TA-Luft" (D): N/A

Hazard classification for water (D): Not dangerous for water. VwVWS annex 1, art.-Nr. 801.

Other regulations, restrictions and prohibition regulations: None.



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## 16. ANY OTHER RELEVANT INFORMATION

### 16.1. List of abbreviations:

<b>ADR</b>	Accord Dangereux Routier.
<b>HVICL</b>	The Australian High Volume Industrial Chemical List.
<b>IMDGC</b>	International Maritime Dangerous Goods Code.
<b>NNOHSC</b>	NNOHSC-National Occupational Health and Safety Commission.
<b>PBT</b>	Persistent, Bioaccumulative and Toxic.
<b>STOT</b>	Specific Target Organ Toxicity.
<b>vPvB</b>	very Persistent very Bioaccumulative.

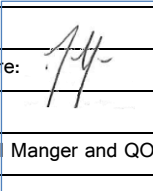
### 16.2. SDS report status:

This document has been compiled by Novus Sealing Pty Ltd on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS'). It is based on information concerning the product, which has been provided to Novus Sealing Pty Ltd by the manufacturer and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While Novus Sealing Pty Ltd has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Novus Sealing Pty Ltd accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

All information and recommendations contained in this publication are based on the present level of knowledge and experience. Since the conditions of use are beyond our control, users must satisfy themselves that products are suitable for the intended processes and applications. No warranty is given or implied in respect of information and recommendations or that any use of the products will not infringe rights belonging to other parties. Our most current General Sales Conditions shall apply.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. This MSDS has been transcribed into Info safe NOHSC format from an original issued by the manufacturer on the date shown.

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