

Section 1: Product Information	
Name:	WS-151 Sealant
Description:	Urethane sealant
Use:	Windshield sealant
MSDS number:	YHAI-30
Appearance and odor:	Black, no odor
Emergency telephone:	1-800-424-9300 CHEMTREC
Product information:	859-879-2853
Effective date:	5/20/2011
Supersedes date:	8/1/2008

Section 2: Hazardous Ingredients		
The components listed below are identified as hazardous chemicals under the criteria of the OSHA hazard communication standard (29 CFR 1910.1200).		
<u>Common name / Chemical name</u>	<u>CAS number</u>	<u>Approximate %</u>
Carbon black	1333-86-4	30 - 60%
Calcium carbonate	471-34-1	10 - 30%
Aliphatic Diisocyanate, free	101-68-8	<1%

Section 3: Emergency and First Aid Procedure
<p>Eye contact: Flush eyes with water for at least 15 minutes. If irritation develops, consult a physician.</p> <p>Skin contact: Remove contaminated clothing and shoes. Wash affected area with soap and water. If irritation develops, consult a physician. Wash contaminated clothing separately before reuse.</p> <p>Inhalation: Remove to fresh air. If symptoms develop, seek immediate medical attention. If abnormal respiration is observed, artificial respiration (preferably mouth to mouth) and oxygen should be administered by a qualified first aid responder.</p> <p>Ingestion: Do not induce vomiting. Seek medical attention. Do not give anything by mouth if the person is drowsy, unconscious, or has no gag reflex. Ingestion creates a high risk of aspiration and subsequent chemical pneumonitis. However, if more than one milliliter per kilogram of body weight of the hydrocarbon was ingested, careful emesis or lavage is recommended because of the toxic effects produced by the hydrocarbon.</p> <p><i>Note to physician:</i> Treatment should be directed at preventing absorption, administering to the symptoms as they occur, and providing supportive therapy.</p>

Section 4: Health Effects Summary			
Primary route(s) of exposure:	Eye - yes	Skin - yes	Inhalation - yes
Eye contact: Can cause mild to moderate irritation. The severity of reaction depends on duration of exposure and first aid procedures administered.			

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Skin contact:

Prolonged or repeated contact can defat the skin, cause irritation, and lead to the development of dermatitis.

Inhalation:

Can cause irritation to the nose, throat, and upper respiratory tract.

Inhalation can cause dizziness, headaches, and incoordination.

Nausea, vomiting, and gastrointestinal upset can occur.

This product contains one or more materials that may be hazardous if exposed to them individually in their original form. However, all materials used to make this product are encapsulated in a paste form and will not pose exposure risk when used or handled as recommended in normal manufacturing operations. Once the product has reached its cured state, all materials remain bound with no health risks.

Ingestion:

Ingestion can cause gastrointestinal irritation.

Can cause nausea, vomiting, and gastrointestinal upset.

Dizziness, faintness, drowsiness, and incoordination (ataxia) can occur.

Additional effects - longterm (target organs):

Eye, Skin.

May aggravation of existing conditions:

Skin.

Section 5: Toxicologic Information

Carbon black

Toxic effects:*

Can cause mechanical irritation and discoloration of the eyes and skin. Inhalation can cause irritation to the nose and respiratory tract. Prolonged and repeated inhalation can affect the pulmonary system causing difficulty in breathing, chest pain, and general weakness.

Carcinogenicity - listed by:

ACGIH: no IARC monographs: 2B NTP annual report: no OSHA: no

Calcium Carbonate

Toxic effects:*

Overexposure to calcium carbonate dusts may affect respiratory function.

Note: Naturally occurring calcium carbonate can contain, as an impurity, trace amounts of crystalline silica.

Carcinogenicity - listed by:

ACGIH: no IARC monographs: no NTP annual report: no OSHA: no

Aliphatic Diisocyanate

Toxic effects:*

Skin contact can irritate the skin and may cause a rash. Exposure can irritate the eyes, nose, throat, and lungs causing coughing, wheezing, chest tightness, and/or shortness of breath. Prolonged and repeated exposure may cause an asthma like allergy and reduce lung function causing shortness of breath.

ACGIH: no IARC monographs: no NTP annual report: no OSHA: no

Note: This product does not contain carbon black or calcium carbonate in the powder form. The above toxic effects may not apply.

Section 6: Occupational Control Procedures

Eye protection:

Wear chemical splash goggles.

An eye wash facility should be readily available.

Skin protection:

Wear protective clothing and appropriate impervious gloves. Because a variety of protective gloves exist, always consult glove manufacturer to determine the proper type for specific operation.

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Respiratory protection:

Respiratory protection is not usually required. Industrial hygiene consultation is recommended because airborne exposure levels vary depending on the nature of the operation being performed.

Ventilation:

Maintain airborne concentration below the established exposure limits (See airborne exposure limits in this section). General (dilution) ventilation may be acceptable. However, local exhaust ventilation is recommended when vapors, mists, or dusts can be released.

Personal hygiene:

Wash thoroughly after handling, especially before eating, drinking, smoking, or using restroom facilities. Wash contaminated goggles, faceshield, and gloves. Professionally launder contaminated clothing. Discard contaminated shoes.

Airborne exposure limits

Carbon black

ACGIH TLV-TWA: 3.5 mg/m3

OSHA PEL: 3.5 mg/m3

Calcium carbonate

ACGIH TLV-TWA:	10 mg/m3	total particulate
OSHA PEL:	5 (15) mg/m3	respirable reaction (total particulate)

Section 7: Fire Protection Information

Flash point: > 435oF, 224oC Test method: setaflash closed cup

Explosive limits: LEL (%) - not established UEL (%) - not established

Auto-ignition temperature: not established

Extinguishing media:

Small fires: Use agents approved for class B hazards (e.g. dry chemical, carbon dioxide, halon, foam, and steam) or water fog.

Large fires: Use water spray, fog, or alcohol foam.

Special fire fighting procedures:

Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.

Unusual fire and explosion hazards:

May liberate irritating or toxic vapors during combustion or decomposition.

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Section 8: Reactivity Data

Stable under normal conditions of storage and use: yes

Materials to avoid:

Amines.

Oxidizing agents.

Acids.

Strong bases.

Water.

Hazardous polymerization:

Hazardous polymerization will not occur.

Thermal decomposition products:

If heated to high temperatures, this product may emit the following compounds:

Isocyanate containing compounds.

Oxides of nitrogen.

Smoke, soot, & toxic fumes (e.g. carbon dioxide & carbon monoxide).

Section 9: Spill and Leak Procedures

Response to spills:

Shovel or scoop spilled product and place in closed containers for further handling and disposal.

Precautions:

If the airborne concentration exceeds established exposure limits (TLV or PEL), or if high airborne concentrations can occur, evacuate employees and ventilate the area.

A supplied air respirator or self-contained breathing apparatus (SCBA) should be used for entry into enclosed spaces, or in areas with inadequate ventilation.

Disposal methods:

If discarded in its original unused form, this product should be managed (stored/treated/disposed/etc.) at an authorized facility, in compliance with all applicable federal, state, and local requirements. Be sure to contact appropriate government environmental agencies if further disposal guidance is required.

It is recommended that an alternative for disposal be selected according to the waste management hierarchy.

Section 10: Special Precautions

Recommended storage practice and conditions:

Store in cool, dry, well ventilated area. Do not store above: 95oF, 35oC

Container use procedures:

No special precautions are needed. Follow good manufacturing and handling practices.

Empty container precautions:

This container can be hazardous when empty, because it can retain product residues. Therefore, do not re-use container for food, clothing, or products for human or animal consumption or where skin contact may occur.

Supplemental section 10 information:

HMIS classification - health: 1; flammability: 1; reactivity: 0.

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Section 11:	Physical Data
% Non-volatile (by weight):	> 99
pH:	not applicable
Vapor density (air=1):	not applicable
Solubility in water:	insoluble
Evaporation rate:	not applicable
Vapor pressure (mmHg @25oC):	not applicable
Specific gravity (water=1);	> 1
Approximate boiling point:	not applicable
<i>Supplemental section 11 information:</i>	not established

Section 12:	Label and Transportation Information
DOT shipping name:	non-regulated
DOT label:	not applicable
DOT identification No.:	not applicable
<i>Supplemental section 12 information:</i>	
For Canadian shipments:	F115
HM-181, IATA/ICAO, IMO - non-regulated	

Section 13:	Regulatory Information
Toxic substance control act (TSCA)	
Chemical components(s) in this produc (b) chemical substance inventory listing (40 CFR 710).	
SARA title III information	
Section 313 - toxic chemicals	
Pursuant to section 313, this product does not contain a toxic chemical in excess of 1 percent of the mixture (0.1 percent, if the listed toxic chemical is a carcinogen).	
Section 302 - extremely hazardous substances	
Pursuant to section 302, this product does not contain an extremely hazardous substance.	
Section 311/312 - hazard categories	
Pursuant to section 311/312, the physical and health hazard categories for this product are identified below:	
Fire hazard:	no
Sudden release of pressure hazard:	no
Reactivity hazard:	no
Immediate (acute) health hazard:	yes
Delayed (chronic) health hazard:	yes
Hazardous materials information review regulation - Canada	
This material safety data sheet provides information that complies with the requirement setforth under the Canadian workplace hazardous materials information system (WHMIS). However, please note the TSCA designation above in reference to DSL and NDSL list status in Canada.	
Claim for exemption registry No.:	not applicable
Filing date for claim:	not applicable

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Section 14: Users Responsibility

A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

Disclaimer of liability

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations of warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

If you have questions with regard to health effects, or other information presented in this document, contact:

Neil Dalton
Director of Environment, Health and Safety
Yokohama Tire Corporation
1500 Indiana Avenue
Salem, VA 24153
Tel.) 540-375-8209 Fax.) 540-375-0226

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State of California Addendum to the Material Safety Data Sheet

Product name: **WS-151 Sealant**

Effective date: 5/20/2011

The California safe drinking water and toxic enforcement act of 1986, otherwise known as proposition 65, requires that persons potentially exposed to certain substances be made aware of the chronic effects of the substances specified by the state of California.

This product contains the following substances known to the state of California to cancer, birth defects, or other reproductive harm.

Ingredients

Trace of crystalline silica.

Carbon Black

Note: The chemicals listed above are not in powder form in this product.

End of MSDS

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Commonwealth of Pennsylvania Addendum to the Material Safety Data Sheet

Product name: **WS-151 Sealant**

Effective date: 5/20/2011

All of the materials in this product that are required by the Commonwealth of Pennsylvania to be identified are listed below. In addition, some of the materials identified may have been placed by the Commonwealth of Pennsylvania on their hazardous substance list.

<u>Ingredients</u>	<u>CAS Number</u>	<u>Weight %</u>
Carbon black	1333-86-4	30 - 60%
Calcium carbonate	471-34-1	10-30%

**Note the above chemicals are not in the powder form in this product.*