

# WESTOX SALT RETARDER

WESTLEGATE Material Safety Data Sheet  
Issue Date: Wed 21-April-2010

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## IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

**HAZARDOUS ACCORDING TO WORKSAFE AUSTRALIA CRITERIA**

### SUPPLIER

Company: Westlegate Pty Ltd  
Address: 287 Milperra Road  
Revesby NSW, 2212  
Australia  
Telephone: +61(0)2 9774 4100  
Fax: +61(0)2 9774 4626

### HAZARD RATINGS

Product Name:	Westox Salt Retarder
CAS RN No(s):	None
UN Number:	None
Dangerous Goods Class:	None
Packaging group:	None
Subsidiary Risk:	None
Hazchem Code:	None
Poisons Schedule Number:	S5

### USE

Salt retarder used to reduce hygroscopic salt movement in new works.

### PHYSICAL DESCRIPTION/PROPERTIES

#### APPEARANCE

Transparent blue, green or red low viscosity alkaline liquid; mixes with water.

Boiling Point (deg °C):	Not available
Melting Point (deg °C):	Not available
Vapour Pressure (kPa):	Not available
Specific Gravity:	1.0-1.2
Flash Point (deg °C):	Not applicable
Lower Explosive Limit	Not applicable
Upper Explosive Limit	Not applicable
Solubility in Water (g/L):	Miscible

### INGREDIENTS

NAME	CAS RN	%
sodium metasilicate	1344-09-8	10-30
nonhazardous ingredients including, water	7732-18-5	>60

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## HEALTH HAZARD

### ACUTE HEALTH EFFECTS

#### SWALLOWED

The liquid is highly discomforting to the gastro-intestinal tract and may cause severe mucous membrane damage.

Considered an unlikely route of entry in commercial/industrial environments.

Ingestion may cause corrosion of the mucous membranes of the oral and alimentary canal resulting in nausea, vomiting, diarrhea, headache, weakness along with burning sensations in the mouth, oesophagus and stomach.

#### EYE

The liquid is highly discomforting to the eyes and may cause burns.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

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#### SKIN

The liquid is discomforting to the skin and may cause burns.

The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.

Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

The material may produce severe skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterized by skin redness (erythema) thickening of the epidermis.

Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. Prolonged contact is unlikely, given the severity of response, but repeated exposures may produce severe ulceration.

#### INHALED

The mist is highly discomforting to the upper respiratory tract.

The material may produce respiratory tract irritation. Symptoms of pulmonary irritation may include coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and a burning sensation.

Unlike most organs, the lung can respond to a chemical insult or a chemical agent, by first removing or neutralizing the irritant and then repairing the damage (inflammation of the lungs may be a consequence).

The repair process (which initially developed to protect mammalian lungs from foreign matter and antigens) may, however, cause further damage to the lungs (fibrosis for example) when activated by hazardous chemicals. Often, this results in an impairment of gas exchange, the primary function of the lungs. Therefore prolonged exposure to respiratory irritants may cause sustained breathing difficulties.

Spray/mist inhalation may cause sore throat, coughing, shortness of breath, headache, dizziness and nausea which may lead to pulmonary oedema with cyanosis or chemical pneumonia.

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## HEALTH HAZARD ...

### CHRONIC HEALTH EFFECTS

Primary route of exposure is usually by skin contact / eye contact.  
As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

### FIRST AID

#### SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.  
If swallowed do NOT induce vomiting.  
If vomiting occurs, lean patient forward or place on left side (head-down Position, if possible) to maintain open airway and prevent aspiration.  
Observe the patient carefully.  
Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.  
Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.  
Seek medical advice.

#### EYE

If this product comes in contact with the eyes:  
Immediately hold the eyes open and wash continuously with fresh running water.  
Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  
Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.  
Transport to hospital or doctor without delay.  
Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

#### SKIN

If product comes in contact with the skin:  
Immediately remove all contaminated clothing, including footwear (after rinsing with water).  
Wash affected areas thoroughly with water (and soap if available).  
Seek medical attention in event of irritation.

#### INHALED

If fumes or combustion products are inhaled:  
Remove to fresh air.  
Lay patient down. Keep warm and rested.  
Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures  
Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained.  
Perform CPR if necessary.  
Transport to hospital, or doctor.

### ADVICE TO DOCTOR

Treat symptomatically.

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## PRECAUTIONS FOR USE

### EXPOSURE STANDARDS

None assigned. Refer to individual constituents.

#### EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA): 6.3694 mg/m<sup>3</sup>.

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be over exposed.

Component	Breathing Zone ppm	Breathing Zone mg/m <sup>3</sup>	Mixture Conc. (%)
Sodium metasilicate	1.9108	30	0

#### INGREDIENT DATA

SODIUM METASILICATE:  
CEL TWA: 2mg/m<sup>3</sup>

WATER:

No exposure limits set by NOHSC or ACGIH

### ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling(released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favorable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

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## PRECAUTIONS FOR USE ...

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

## PERSONAL PROTECTION

### EYE

Chemical goggles.  
Full face shield.  
Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

### HANDS/FEET

Rubber gloves Neoprene gloves PVC gloves impervious gloves.  
Protective footwear Rubber boots PVC boots.

### OTHER

Overalls  
Barrier cream  
Eyewash unit

### RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	-AUS P	-
1000	50	-	-AUS P
5000	50	Airline *	-
5000	100	-	-2 P
10000	100	-	-3 P
	100+		Airline **

\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information, consult site specific WESTLEGATE data (if available), or your Occupational Health and Safety Advisor.

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## SAFE HANDLING

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### STORAGE AND TRANSPORT

#### SUITABLE CONTAINER

Polyethylene or polypropylene container.  
Check all containers are clearly labelled and free from leaks.

#### STORAGE INCOMPATIBILITY

Segregate from acids.  
Reacts with steel, bronze, brass and copper, aluminium, zinc and tin.

#### STORAGE REQUIREMENT

Store in original containers.  
Keep containers securely sealed.  
Store in a cool, dry, well ventilated area.  
Store away from incompatible materials.  
Protect containers against physical damage and check regularly for leaks.  
Observe manufacturer's storing and handling recommendations.  
DO NOT use aluminium, galvanized or tin-plated containers.

#### TRANSPORTATION

No restrictions.

### SPILLS AND DISPOSAL

#### MINOR SPILLS

Slippery when spilt.  
Clean up all spills immediately.  
Wear protective clothing, impervious gloves and safety glasses.  
Increase ventilation.  
Wipe up and absorb small quantities with vermiculite or other absorbent material  
Place in clean drum then flush area with water.

#### MAJOR SPILLS

Slippery when spilt.  
Clear area of personnel and move upwind.  
Alert Fire Brigade and tell them location and nature of hazard.  
Wear full body protective clothing with breathing apparatus.  
Prevent, by any means available, spillage from entering drains or water course.  
Stop leak if safe to do so.  
Contain spill with sand, earth or vermiculite.  
Collect recoverable product into labelled containers for recycling.  
Neutralise/decontaminate residue.  
Collect solid residues and seal in labelled drums for disposal.  
Wash area and prevent runoff into drains.  
After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.  
If contamination of drains or waterways occurs, advise emergency services.

#### DISPOSAL

Recycle wherever possible or consult manufacturer for recycling options.  
Consult State Land Waste Management Authority for disposal.  
Treat and neutralise with dilute acid at an effluent treatment plant.  
Recycle containers, otherwise dispose of in an authorised landfill.

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## SAFE HANDLING ...

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### FIRE FIGHTERS' REPORT

#### EXTINGUISHING MEDIA

There is no restriction on the type of extinguisher which may be used.

#### FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

Wear full body protective clothing with breathing apparatus.

Prevent, by any means available, spillage from entering drains or water courses.

DO NOT approach containers suspected to be hot.

Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

#### FIRE/EXPLOSION HAZARD

Non combustible.

Not considered to be a significant fire risk.

Expansion or decomposition on heating may lead to violent rupture of containers.

Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).

May emit acrid smoke.

Other decomposition products include carbon dioxide (CO<sub>2</sub>).

#### FIRE INCOMPATIBILITY

Avoid contact with acids, aluminium, tin and zinc.

#### HAZCHEM

None.

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## CONTACT POINT

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#### COMPANY CONTACT:

WESTLEGATE PTY. LTD

MONDAY TO FRIDAY 8.30AM – 5.00PM

+612 9774-4100

#### AUSTRALIAN POISONS INFORMATION CENTRE

24 HOUR SERVICE:

131126

POLICE, FIRE BRIGADE OR AMBULANCE:

000

#### NEW ZEALAND POISONS INFORMATION CENTRE

24 HOUR SERVICE:

(03) 4747 000

NZ EMERGENCY SERVICES:

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End of Report

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