

# DURITE AL-5395

Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 1 of 13

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

DURITE AL-5395

### PRODUCT USE

Abrasive bonding.

### SUPPLIER

Company: Asta Chemicals Sdn Bhd

Address:

Lot 1863 Mukim Sungai Karang Kawasan Perindustrian

Lembaga Pelabuhan Kuantan

Tanjung Gelang, Kuantan

Kuantan Pahang, 25720

Malaysia

Telephone: +60 9 583 3936

Fax: +60 9 583 3980

Company: Asta Chemicals Sdn Bhd

Address:

Lot 2823 (101) Mukim 1, Lorong Perusahaan 2,

Kawasan Perindustrian Perai

Pulau Pinang

Perai, 13600

Malaysia

Telephone: +60 4 390 8110

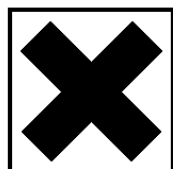
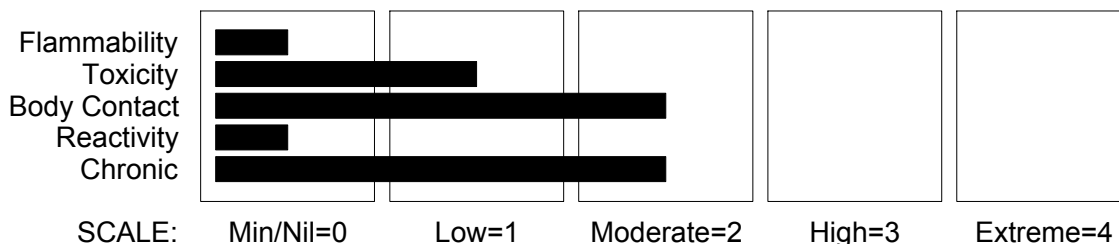
Fax: +60 4 399 8087

## Section 2 - HAZARDS IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.** According to the Criteria of NOHSC, and the ADG Code.

### CHEMWATCH HAZARD RATINGS



### RISK

- Irritating to eyes and skin.
- May cause SENSITISATION by skin contact.

### SAFETY

- Do not breathe gas/fumes/vapour/spray.
- Avoid contact with skin.
- Avoid contact with eyes.
- Wear suitable gloves.
- Wear eye/face protection.
- To clean the floor and all objects contaminated by this material, use water.

continued...

# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 2 of 13

## Section 2 - HAZARDS IDENTIFICATION

- In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
- If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
phenol/ formaldehyde resin	9003-35-4	>65
formaldehyde.	50-00-0	0.7max.
water	7732-18-5	1-35

NOTE: Manufacturer has supplied full ingredient information to allow CHEMWATCH assessment.

## Section 4 - FIRST AID MEASURES

### 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 eyelids apart and flush the eye continuously with 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 skin contact occurs:
  - Immediately remove all contaminated clothing, including footwear.
  - Flush skin and hair with running water (and soap if available).
  - Seek medical attention in event of irritation.

### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- 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.

### NOTES TO PHYSICIAN

- Treat symptomatically.

continued...

# DURITE AL-5395

Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 3 of 13

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## Section 5 - FIRE FIGHTING MEASURES

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### 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 breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- 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.
- Equipment should be thoroughly decontaminated after use.

### FIRE/EXPLOSION HAZARD

- The material is not readily combustible under normal conditions.
- However, it will break down under fire conditions and the organic component may burn.
- Not considered to be a significant fire risk.
- Heat may cause expansion or decomposition with 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>) and aldehydes.

### FIRE INCOMPATIBILITY

- Avoid contamination with strong oxidising agents as ignition may result.

### HAZCHEM

None

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### MINOR SPILLS

- Slippery when spilt.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labelled container for waste disposal.

### MAJOR SPILLS

- Slippery when spilt.
- Minor hazard.
- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact with the substance, by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
- Wash area and prevent runoff into drains or waterways.
- If contamination of drains or waterways occurs, advise emergency services.

continued...

# DURITE AL-5395

Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 4 of 13

Section 6 - ACCIDENTAL RELEASE MEASURES

## EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

formaldehyde. 40 ppm

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

formaldehyde. 10 ppm

other than mild, transient adverse effects without perceiving a clearly defined odour is:

formaldehyde. 1 ppm\*

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this MSDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

### SUITABLE CONTAINER

- Lined metal can, lined metal pail/ can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

### STORAGE INCOMPATIBILITY

- Avoid storage with oxidisers.

### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well ventilated area.

continued...

# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 5 of 13

Section 7 - HANDLING AND STORAGE

- DO NOT allow to freeze.
  - Store away from incompatible materials.
  - Protect containers against physical damage and check regularly for leaks.
  - Observe manufacturer's storage and handling recommendations contained within this MSDS.
- Store below 30 deg. C.

### SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



- +: May be stored together  
O: May be stored together with specific precautions  
X: Must not be stored together

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA ppm	STEL ppm
Australia Exposure Standards	formaldehyde. (Formaldehyde (h))	1	2

The following materials had no OELs on our records

- phenol/ formaldehyde resin: CAS:9003- 35- 4
- water: CAS:7732- 18- 5

### EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
formaldehyde.	0	20

### ODOUR SAFETY FACTOR (OSF)

OSF=25 (phenol/ formaldehyde resin)

■ Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached

continued...

# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 6 of 13

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

E <0.18 As " D" for less than 10% of persons aware of being tested

#### MATERIAL DATA

FORMALDEHYDE.:

PHENOL/ FORMALDEHYDE RESIN:

- for formaldehyde:

Odour Threshold Value for formaldehyde: 0.98 ppm (recognition)

NOTE: Detector tubes for formaldehyde, measuring in excess of 0.2 ppm are available commercially.

Formaldehyde vapour exposure:

Primary irritation is dependent on duration of exposure and individual susceptibility.

The following are typical symptoms encountered at various exposure levels.

0.1 ppm - Lower level of mucous eye, nose and throat irritation

0.8 ppm - Typical threshold of perception

1-2 ppm - Typical threshold of irritation

2-3 ppm - Irritation of eyes, nose and throat

4-5 ppm - Increased irritation, tearing, headache, pungent odour

10-20 ppm - Profuse tearing, severe burning, coughing

50 ppm - Serious bronchial and alveolar damage

100 ppm - Formaldehyde induced chemical pneumonia and death

Despite the intent of the TLV Ceiling recommendation it is believed that 0.3 ppm will not protect that portion of the workforce (up to 20%) reported to be responsive to low ambient concentrations. Because of the dose-related carcinogenic activity for rat and mouse inhalation of formaldehyde, the report of macromolecular adducts in the upper and lower respiratory tracts of nonhuman primates following inhalation of formaldehyde, the human case reports of upper respiratory tract malignant melanoma associated with

formaldehyde inhalation and the suggestive epidemiologic data on human cancer risk, the TLV Committee recommends that workplace formaldehyde air concentrations be reduced to the lowest possible levels that can be achieved using engineering controls.

Odour Safety Factor(OSF)

OSF=0.36 (FORMALDEHYDE).

DURITE AL-5395:

- None assigned. Refer to individual constituents.

PHENOL/ FORMALDEHYDE RESIN:

- Odour Threshold Value for phenol: 0.060 ppm (detection)

NOTE: Detector tubes for phenol, measuring in excess of 1 ppm, are commercially available.

Systemic absorption by all routes may induce convulsions with damage to the lungs and central nervous system.

Exposure at or below the recommended TLV-TWA is thought to protect the worker from respiratory, cardiovascular, hepatic, renal and neurological toxicity. Workers or volunteers exposed at or below 5.2 ppm phenol have experienced no ill-effects. Because phenol as a vapour, liquid or solid can penetrate the skin causing systemic effects, a skin notation is considered necessary. Although ACGIH has not recommended a STEL it is felt that ACGIH excursion limits (15 ppm limited to a total duration of 30

minutes with brief excursions limited to no more than 25 ppm) and NIOSH Ceiling values are sufficiently similar so as to provide the same margin of safety.

Odour Safety Factor(OSF)

OSF=25 (PHENOL).

WATER:

- No exposure limits set by NOHSC or ACGIH.

#### PERSONAL PROTECTION

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# DURITE AL-5395

Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

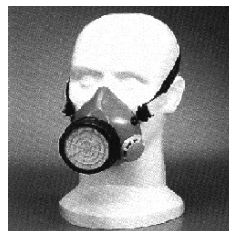
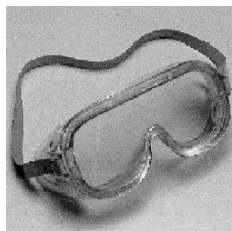
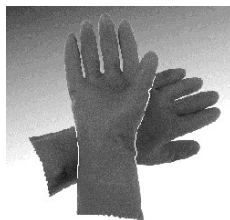
A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 7 of 13

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION



### EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

### HANDS/FEET

- Wear safety footwear.
- Neoprene gloves.

### OTHER

- Overalls.
- Eyewash unit.

### GLOVE SELECTION INDEX

- Glove selection is based on a modified presentation of the: "Forsberg Clothing Performance Index".
- The effect(s) of the following substance(s) are taken into account in the computer-generated selection: water

- Protective Material CPI \*

BUTYL	A
NEOPRENE	A
VITON	A
PVA	C
NATURAL RUBBER	C

- \* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

### RESPIRATOR

- Type BAX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

The local concentration of material, quantity and conditions of use determine the type of personal protective

continued...

# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 8 of 13

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

#### ENGINEERING CONTROLS

- Use in a well-ventilated area.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

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.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

#### APPEARANCE

Yellowish red liquid with a phenolic odour; mixes with water.

#### PHYSICAL PROPERTIES

Liquid.

Mixes with water.

State	Liquid	Molecular Weight	Not applicable.
Melting Range (°C)	Not available.	Viscosity	Not available
Boiling Range (°C)	Not available.	Solubility in water (g/L)	Miscible
Flash Point (°C)	Not applicable	pH (1% solution)	Not available
Decomposition Temp (°C)	Not available.	pH (as supplied)	Not available
Autoignition Temp (°C)	Not available.	Vapour Pressure (kPa)	Not available.
Upper Explosive Limit (%)	Not applicable	Specific Gravity (water=1)	1.19 approx.
Lower Explosive Limit (%)	Not applicable	Relative Vapour Density (air=1)	Not available.
Volatile Component (%vol)	Not available	Evaporation Rate	Not available

### Section 10 - STABILITY AND REACTIVITY

#### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

*For incompatible materials - refer to Section 7 - Handling and Storage.*

### Section 11 - TOXICOLOGICAL INFORMATION

#### POTENTIAL HEALTH EFFECTS

continued...



# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 9 of 13

## Section 11 - TOXICOLOGICAL INFORMATION

### ACUTE HEALTH EFFECTS

#### SWALLOWED

■ The liquid is discomforting to the gastro-intestinal tract and may be harmful if swallowed. Ingestion may result in nausea, abdominal irritation, pain and vomiting.

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

#### EYE

■ The liquid is highly discomforting to the eyes and capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.

The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

#### SKIN

■ The liquid is discomforting to the skin.

if exposure is prolonged and is capable of causing skin sensitisation and allergic skin reactions which may lead to dermatitis from repeated exposures over long periods.

Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

The material may accentuate any pre-existing skin condition.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

#### INHALED

■ The vapour is discomforting to the upper respiratory tract.

Inhalation of vapour is more likely at higher than normal temperatures.

### CHRONIC HEALTH EFFECTS

■ Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures.

The material contains residues of free formaldehyde which may irritate the eyes or mucous membranes and produce an allergic response if used in confined spaces or heated.

### TOXICITY AND IRRITATION

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

■ The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

DURITE AL-5395:

■ Not available. Refer to individual constituents.

PHENOL/ FORMALDEHYDE RESIN:

TOXICITY

Oral (rat) LD50:>2500 mg/kg

Dermal (rabbit) LD50:>5000 mg/kg

[Manufacturer Mon]

IRRITATION

Skin (rabbit):3/8 - Moderate - Draize

Eye(rabbit):40/110 Moderate - Draize

■ The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

continued...

# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 10 of 13

### Section 11 - TOXICOLOGICAL INFORMATION

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

#### FORMALDEHYDE.:

##### TOXICITY

Oral (woman) LDLo:108 mg/kg

Oral (man) TDLo:643 mg/kg

Oral (rat) LD50:100 mg/kg

Inhalation (man) TCLO:0.3 mg/m<sup>3</sup>

Inhalation (rat) LC50:203 mg/m<sup>3</sup>

Dermal (rabbit) LD50:270 mg/kg

##### IRRITATION

Skin (human):0.15 mg/3d- I Mild

Skin (rabbit):2 mg/24H SEVERE

Eye (human):4 ppm/5m

Eye (rabbit):0.75 mg/24H SEVERE

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

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. **WARNING:** This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS. Tenth Annual Report on Carcinogens: Substance anticipated to be Carcinogen [National Toxicology Program: U.S. Dep. of Health & Human Services 2002].

#### WATER:

■ No significant acute toxicological data identified in literature search.

#### CARCINOGEN

formaldehyde.	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	1	Carcinogenic to humans
formaldehyde.	Australia Exposure Standards Currently Under Review	Carcinogen Category	2	
formaldehyde.	Australia Exposure Standards	Carcinogen Category	2	
formaldehyde.	Australia Exposure Standards - Carcinogens	Carcinogen Category	2	

#### SENSITISER

phenol/ formaldehyde resin	Australia Final Report on Hazard Classification of Common Skin Sensitisers	Recommended for Hazard Classification (R43)	No
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continued...

# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 11 of 13

### Section 11 - TOXICOLOGICAL INFORMATION

SKIN			
phenol/ formaldehyde resin	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	3
formaldehyde.	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	3

### Section 12 - ECOLOGICAL INFORMATION

#### FORMALDEHYDE.:

#### PHENOL/ FORMALDEHYDE RESIN:

■ DO NOT discharge into sewer or waterways.

■ For Formaldehyde:

Environmental Fate: Formaldehyde is common in the environment as a contaminant of smoke and as photochemical smog. Concentrated solutions containing formaldehyde are unstable and oxidize slowly. In the presence of air and moisture, polymerization takes place readily in concentrated solutions at room temperature to form paraformaldehyde.

Atmospheric Fate: In the atmosphere, formaldehyde both photolysis and reacts with reactive free radicals (primarily hydroxyl radicals). Reaction with nitrate radicals, insignificant during the day, may be an important removal process at night. Air Quality Standards : <0.1 mg/m<sup>3</sup> as a 30 min. average, indoor air, non-industrial buildings (WHO guideline).

Aquatic Fate: Due to its solubility, formaldehyde will efficiently transfer to rain and surface water and will biodegrade to low concentrations within days. Adsorption to sediment and volatilization are not expected to be significant routes of biodegradation.

Drinking Water Standard: Formaldehyde: 900 ug/L. (WHO guideline).

Terrestrial Fate: In soil, aqueous solutions of formaldehyde leach through the soil; at high concentrations adsorption to clay minerals may occur. Although biodegradable under both aerobic and anaerobic conditions the fate of formaldehyde in soil is unclear.

Ecotoxicity: Formaldehyde does not bioconcentrate in the food chain.

#### PHENOL/ FORMALDEHYDE RESIN:

■ For Phenols:

Ecotoxicity - Phenols with log Pow >7.4 are expected to exhibit low toxicity to aquatic organisms however; the toxicity of phenols with a lower log Pow is variable. Dinitrophenols are more toxic than predicted from QSAR estimates. Hazard information for these groups is not generally available.

#### FORMALDEHYDE.:

■ Harmful to aquatic organisms.

The material is classified as an ecotoxin\* because the Fish LC50 (96 hours) is less than or equal to 0.1 mg/l

\* Classification of Substances as Ecotoxic (Dangerous to the Environment)

Appendix 8, Table 1

Compiler's Guide for the Preparation of International Chemical Safety Cards: 1993 Commission of the European Communities.

#### Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
phenol/ formaldehyde resin	No Data Available	No Data Available	LOW	No Data Available
formaldehyde.	LOW	LOW	LOW	HIGH

continued...

# DURITE AL-5395

## Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 12 of 13

### Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

### Section 14 - TRANSPORTATION INFORMATION

#### HAZCHEM:

None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, IATA, IMDG

### Section 15 - REGULATORY INFORMATION

#### Indications of Danger:

Xi

Irritant

POISONS SCHEDULE None

#### REGULATIONS

#### Regulations for ingredients

#### phenol/ formaldehyde resin (CAS: 9003-35-4) is found on the following regulatory lists;

"Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia Final Report on Hazard Classification of Common Skin Sensitisers", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution ?United Kingdom"

#### formaldehyde. (CAS: 50-00-0) is found on the following regulatory lists;

"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - disinfection by-products)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "Australia - New South Wales - Work Health and Safety Regulation 2011 - Hazardous chemicals at major hazard facilities (and their threshold quantity) - Table 15.1", "Australia - Queensland Work Health and Safety Regulation - Hazardous chemicals at major hazard facilities (and their threshold quantity)", "Australia - South Australia - Work Health and Safety Regulations 2012 - Schedule 15 Hazardous chemicals at major hazard facilities (and their threshold quantity) Table 15.1", "Australia - Victoria Drugs, Poisons and Controlled Substances (Precursor Chemicals) Regs 2007 - Schedule 1 - Precursor Chemicals and Quantities", "Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia Exposure Standards Currently Under Review", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Illicit Drug Precursors/Reagents - Category II", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix C", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "Australia Work Health and Safety Regulations 2011 - Hazardous chemicals at major hazard facilities and their threshold quantity", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Chemical Secretariat (ChemSec) SIN List (\*Substitute It Now!)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution ?Norway", "Sigma-AldrichTransport Information", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments", "WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established"

#### water (CAS: 7732-18-5) is found on the following regulatory lists;

"Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution ?Norway", "Sigma-AldrichTransport Information"

No data for Durite AL-5395 (CW: 4607-99)

continued...

# DURITE AL-5395

Chemwatch Independent Material Safety Data Sheet

Issue Date: 19-Oct-2012

A317LP

CHEMWATCH 4607-99

Version No:4.1.1.1

CD 2013/2 Page 13 of 13

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## Section 16 - OTHER INFORMATION

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### EXPOSURE STANDARD FOR MIXTURES

- "Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:
- Composite Exposure Standard for Mixture (TWA) :100 mg/m<sup>3</sup>.

### MSDS SECTION CHANGES

*The following table displays the version number of and date on which each section was last changed.*

Section Name	Version	Date	Section Name	Version	Date	Section Name	Version	Date
Appearance	4	19- Oct- 2012						

- Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

[www.chemwatch.net/references](http://www.chemwatch.net/references).

- The (M)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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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Issue Date: 19-Oct-2012

Print Date: 23-Jul-2013

*This is the end of the MSDS.*