



# SAFETY DATA SHEET

## ARMOBREAK®

Date of Issue: 1 Jun 2016

### 1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

**Chemical name of active ingredient(s):** Fatty amine polymer

**Recommended use:** Agricultural adjuvant.  
Blossom Thinner in Stone fruit

**Supplier:** Etec Crop Solutions Ltd  
PO Box 51584  
Pakuranga, Auckland  
Phone 0800 100 325

**Emergency telephone number:** 0800 Poison (0800 764 766) 24 Hours

### 2. HAZARDS IDENTIFICATION

**Hazard Classification:** Toxic - 6.1C, 6.4A,  
Ecotoxic - 9.1A, 9.3C, 9.4B

**Required identification Details:** **WARNING**  
**KEEP OUT OF REACH OF CHILDREN**  
**ECOTOXIC**  
Harmful, irritant. Harmful if swallowed.  
May cause eye irritation.  
Very toxic to aquatic organisms. May cause long-term adverse in the aquatic environment.  
Dangerous for the environment. Avoid release to the environment.  
Wash skin thoroughly after using.  
Do not eat, drink or smoke when using this product. Wear protective gloves.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Alkyl amine alkoxyated	1258305-76-8 (polymer)	>95

### 4. FIRST-AID MEASURES

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**Description of necessary first aid measures:**

<b>General</b>	Move away from danger area. If symptoms persist, consult a physician. Have SDS sheet available for the doctor.
<b>Effects and symptoms</b>	No known symptoms
<b><u>First-aid measures</u></b>	Remove from contaminated area. Consult a doctor. Symptomatic treatment.
<b>Inhalation:</b>	Not likely to occur. Move person to fresh air if inhaled. Seek medical attention after significant exposure.
<b>Ingestion:</b>	Harmful if swallowed. Rinse with water. Drink plenty of water afterwards or a few glasses of milk. Symptomatic treatment. Do not give anything by mouth to an unconscious person. Call the National Poisons Centre or a doctor if feeling unwell.
<b>Skin contact:</b>	Remove contaminated clothing and shoes immediately. Rinse with plenty of water or use recognized skin cleaner. Launder clothes before re-use.
<b>Eye contact:</b>	Flush eyes with clean running water for 15 minutes. Remove contact lenses. Protect unharmed eye. If irritation persists see a doctor.
<b>Notes to a physician:</b>	If this substance has been swallowed perform gastric lavage.

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**5. FIRE-FIGHTING MEASURES**

<b>HAZCHEM Code:</b>	3Z
<b>Extinguishing media :</b>	Treat as an oil fire. Extinguishing media: water mist*, foam, dry chemical powder or carbon dioxide. (Water spray may be ineffective unless used by experienced fire fighters). Use extinguishing media appropriate to local circumstances and the surrounding environment. Unsuitable extinguishing media: water jet. Water spray may be ineffective unless used by experienced fire fighters.
<b>Hazardous thermal (de)composition products:</b>	Carbon monoxide, carbon dioxide. Non-flammable. If involved in a fire it will support combustion.
<b>Protection of fire-fighters:</b>	Wear self contained breathing apparatus.  Do not allow run-off from fire fighting to enter drains or water courses. Residues must be disposed of in accordance with local regulations.

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**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions:</b>	The usual precautions for handling chemicals should be observed. Use personal protective equipment. For personal protection see Section 8.
<b>Environmental precautions:</b>	Prevent entry of product into drains and waterways. Inform authorities if product enters rivers, lakes or drains.
<b>Methods for cleaning up:</b>	Contain spill, do not allow material to enter sewers or bodies of water. Keep unprotected persons and animals out of the area. Collect contaminated fire extinguishing water separately. Fire residues and contaminated water must be disposed of in accordance with local regulations. Cover the remainder with inert absorbent (e.g. vermiculite, sawdust).

Keep in suitable closed containers for disposal.

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## 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with skin and eyes. Do not inhale spray. When using do not eat, drink or smoke. Avoid release to the environment. For personal protection see Section 8.
<b>Storage:</b>	Normal measures for preventive fire protection. Store in original container, tightly closed in a locked, dry, well ventilated place away from feed, seed and foodstuffs. Keep away from sparks, heat and flames. Keep out of reach of children and animals. No decomposition if stored and applied as directed. To maintain quality, store at ambient temperatures.
<b>Packaging materials:</b>	20 litre HDPE plastic jerry cans 200 litre metal drums

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace Exposure Guidelines

<b>Workplace exposure standards:</b>	No exposure limit has been established. Contains no substances with occupational exposure limit values.
<b>Exposure Standards outside: The workplace:</b>	Not established

### Engineering measures

<b>Exposure control measures:</b>	Provide eyewash station. Effective exhaust system. The usual precautionary measures for handling chemicals should be observed.
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### Personal Protective Equipment

#### **Detail specifications for equipment:**

<b>Respiratory system:</b>	No specific recommendations.
<b>Skin and body:</b>	Protective suit
<b>Hands:</b>	Neoprene or nitrile rubber.
<b>Eyes:</b>	Avoid contact with eyes. Use eye wash bottle with pure water. Wear safety goggles.
<b>General hygiene:</b>	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke while using. Wash hands after work and before eating

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

<b>Physical State:</b>	Liquid (20°C)
<b>Colour:</b>	Amber
<b>Odour:</b>	Amine-like
<b>pH:</b>	6-10 @ 100g/l in water
<b>Vapour Pressure:</b>	< 10 Pa (20°C), 100 Pa (345°C)
<b>Density:</b>	990 kg/m <sup>3</sup> (20°C)
<b>Boiling Point:</b>	> 300°C
<b>Melting point:</b>	<-10°C
<b>Solubility:</b>	Soluble/dispersible

<b>Solubility in other solvents</b>	Soluble in ethanol and octanol. Soluble in xylene.
<b>Cloud point in water (1%)</b>	19°C (AB-46-1203, 20°C)
<b>Information for flammable material including:</b>	
- <b>Flashpoint (state test Method)</b>	>178°C , Pensky-Martens closed cup [ISO 2719]
<b>Auto – ignition Temperature:</b>	Not determined
<b>Octanol/water partition coefficient:</b>	Not known
<b>Explosion properties:</b>	Not explosive
<b>Oxidation properties:</b>	Not classified as oxidising
<b>Viscosity:</b>	235 mPa.s (20°C Newtonian)

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Weak base. Exothermic (reversible) reaction with strong acids.
<b>Stability:</b>	Stable under recommended storage conditions. No dangerous reaction(s) known under conditions of normal use. No decomposition if stored and handled properly
<b>Conditions to avoid:</b>	None known
<b>Materials to avoid:</b>	None known
<b>Hazardous decomposition Products:</b>	None known
<b>Hazardous polymerization:</b>	None known
<b>Specific Data:</b>	N/A
<b>Hazardous reactions :</b>	None known

## 11. TOXICOLOGICAL INFORMATION

### Component: Alkyl amine polymer.

No experimental ecological data are available on the preparation as such. From structurally related products, the following may be expected.

#### Hazard Summary:

Inhalation	Inhalation of (aqueous) aerosols may cause irritation to mucous membranes.
Skin	May cause skin irritation
Eyes	May cause irritation to eyes, respiratory system.
Ingestion	Harmful if swallowed. May cause irritation to mucous membranes.

#### Acute toxicity - Dermal

LD<sub>50</sub> > 2000 mg/kg (rat) (IAAS E-file)

#### Acute toxicity - Oral

LD<sub>50</sub>. 500-2000 mg/kg (rat) (IAAS E-file)

#### Acute toxicity – Inhalation

Vapour pressure low; inhalation; not relevant.

#### Skin irritation

Non-irritating (IAAS E-file)

#### Eye irritation

Mildly irritating (IAAS E-file)

#### Sensitization

Not sensitizing (IAAS E-file)

#### Genotoxicity

Not mutagenic (Ames test) (IAAS E-file)

In vitro cell gene mutation test (in V79 cells): not mutagenic

In vitro cytogenetic test in human lymphocytes: not mutagenic

#### Other toxicological information:

Sub-acute (28 days) oral toxicity (rat):

No Observed Adverse Effect level;

NOEL I= 15mg/kg/day (IAAS E-file)

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## 12. ECOLOGICAL INFORMATION

No experimental ecological data are available on the preparation as such. From structurally related products, the following may be expected.

### Ecotoxicity:

Fish	96 h – LC50: 0.34 mg/l (Oncorhynchus mykiss) (IAAS E-file)
Daphnia	48 h-EC50: 0.26 mg/l (IAAS E-file)
M-Factor	1

### Persistence and degradability:

Biodegradability Not readily biodegradable

**Bioaccumulative potential** No data available

**Mobility in Soil** No data available

**Results of PBT and vPvB** No data available

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## 13. DISPOSAL CONSIDERATIONS

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Hazardous waste.

**Methods of disposal :** Disposal of product and packaging according to local regulations. Use according to label instructions.

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## 14. TRANSPORT INFORMATION

International transport regulations

**UN number:** 3082

**Class or Division:** 9

**Packing Group:** III

**Marine Pollutant:**

**Proper shipping name :** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID. N.O.S.  
(Polymer: alkylamine alkoxyate)

**INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):** Not restricted

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## 15. REGULATORY INFORMATION

**ACVM Registered Number:** P5622

**HSNO Approval Code:** HSR000777

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## 16. OTHER INFORMATION

**Additional information:** **Original Issue Date:** 28<sup>th</sup> June 2006  
**Revision Date:** 1 June 2016  
**Replaces:** ES365

### DISCLAIMER

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