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## Material Safety Data Sheet Jesmonite Liquids

### 1. Identification of the Substance/Preparation and Company

**Product Name:** Jesmonite Liquids (see note 1)

**Company Address:**

Tersus Limited. Challenge Court, Bishop's Castle, Shropshire, SY9 5DW

**Tel:** +44 (0) 1588 630302

**Fax:** +44 (0) 1588 630304

### 2. Composition/Information on Ingredients

No.	CAS Reg No.	Weight (%)
1 Acrylic Polymer	Not hazardous	43.3 – 45.6
2 Individual residual monomers	Not required	<0.1
3 Aqua ammonia	1336 – 21 – 6	0.07 Max
4 Water	7732 – 18 – 5	54.4 – 56.7

**NB:** Water contains small quantities of surfactant, dispersion agent, coalescent agent and polyurethane thickener.

**EEC Risk Classification No.**

Classification and hazard labelling

3 Aqua ammonia C R: 34-37

See Section 15, Regulatory Information.

This product is a preparation.

### 3. Hazards Identification

**Primary Routes of Exposure:** Inhalation, skin contact and eye contact.

**Inhalation:** Inhalation of vapour or mist can cause the following headache, nausea, irritation of the nose, throat and lungs.

**Skin Contact:** Prolonged or repeated skin contact can cause slight skin irritation.

**Eye Contact:** Direct contact with material can cause slight eye irritation.

### 4. First Aid Measures

**Inhalation:** Move subject to fresh air.

**Eye Contact:** Flush eyes with a large amount of water for at least 15 minutes. Consult a physician if irritation persists.

**Skin Contact:** Was affected skin areas thoroughly with soap and water. Consult a physician if irritation persists.

**Ingestion:** If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

### 5. Fire Fighting Measures

**Flash Point** Non-combustible

**Auto-ignition Temperature** N/A

**Lower Explosive Limit** N/A

**Upper Explosive Limit** N/A

**Extinguishing Agents** Use extinguishing media appropriate for surrounding fire.

**Unusual Hazards** Material can splatter above 100°C/212°F. Dry product can burn.

**Personal Protective Equipment** Wear self-contained breathing apparatus (pressure-demand MSHA/NIOSH apparatus or equivalent) and full protective gear.

### 6. Accidental Release Measures

**Personal protection**

Appropriate protective equipment must be worn when handling a spill of this material. See Section 8, Exposure Controls/Personal Protection for recommendations. If exposed to material during clean up operations, see Section 4, First Aid Measures, for actions to follow.

**Procedures**

Keep spectators away. Floor may be slippery, use care to avoid falling. Contain spills immediately with inert materials (e.g. sand, earth). Transfer liquids and solid dyking material to separate suitable containers for recovery or disposal.

**Caution**

Keep spills and cleaning run-off out of municipal sewers and open bodies of water.

### 7. Storage and Handling

**Storage conditions**

Keep from freezing; material may coagulate. The minimum recommended storage temperature for this material is 1°C/34°F. The maximum recommended storage temperature for this material is 49°C/120°F.

**Handling Procedures**

Monomer vapours can be evolved when material is heated during processing operations. See section 8, Exposure Controls/Personal protection, for types of ventilation required.

## 8. Exposure Controls/Personal Protection

No.	CAS Reg No.	Weight (%)
1 Acrylic Polymer	Not hazardous	43.3 – 45.6
2 Individual residual monomers	Not required	<0.1
3 Aqua ammonia	1336 – 21 – 6	0.1 Max
4 Water	7732 – 18 – 5	54.4 – 56.7

**NB:** Water contains small quantities of surfactant, dispersion agent, coalescent agent and thickener.

No. Units	ACGIH TWA STEL	MAK (Germany) WERT KAT
1	None	None
2	a	a
3 ppm	25 b 35 b	20 b c

a	Not required
b	As Ammonia
c	Maximum limit : Category 1

### Personal Protection

**Respiratory protection** A respiratory protection programme meeting OSHA 1910.134 and ANSI Z88.1 requirements must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in 'Exposure Limit Information'. For airborne concentrations, up to 10 times the TWA/TVL's listed in Exposure Limited Information, wear a MSHA/NIOSH approved (or equivalent) half-mask, air purifying respirator. Air purifying respirators should be equipped with an ammonia/methylamine cartridge.

**Hand protection** The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection: Neoprene.

**Eye protection** Use chemical splash goggles (ANSI X87.1 or approved equivalent).

**Ventilation** Use local exhaust with a minimum capture velocity of 100 ft/min. (30 m/min) at the point of vapour evolution. Refer to the current edition of Industrial Ventilation: A manual of Recommended Practice, published by the American Conference of Governmental Industrial Hygienists for information on design, installation, use and maintenance of exhaust systems.

**Other protective equipment** Facilities sorting or utilising this material should be equipped with an eye wash facility.

## 9. Physical and Chemical Properties

<b>Appearance</b>	Milky
<b>Physical form</b>	Liquid
<b>Colour</b>	White
<b>Odour</b>	Acrylic odour
<b>pH</b>	7.8 – 8.9
<b>Viscosity</b>	< 500 mPa/s
<b>Specific gravity (water=1)</b>	1.0 – 1.2
<b>Vapour density (air = 1)</b>	< 1 water
<b>Vapour pressure</b>	2266.5 Pa @ 20°C/ 68°F water
<b>Boiling point/boiling range</b>	100°C/212°F
<b>Melting point/melting range</b>	0°C/32°F
<b>Solubility in water</b>	dilutable
<b>Percent volatility</b>	54.4 – 56.7% water
<b>Evaporation rate (BAc = 1)</b>	< 1 water

## 10. Stability and Reactivity

**Instability** This material is considered stable. However, avoid temperatures above 177°C/350°F, the onset of polymer decomposition. Thermal decomposition is dependent on time and temperature.

**Hazardous decomposition products** Thermal decomposition may yield acrylic monomers.

**Hazardous polymerisation** Product will not undergo polymerisation.

**Incompatibility** There are no known materials which are incompatible with this product.

## 11. Toxicological Information

No toxicity data is available for this material. The information shown in section 3, Hazards Identification, is based on the toxicity profiles for a number of acrylic emulsions that are compositionally similar to this product. Typical data values are:

<b>Oral LD50 – rat:</b>	> 5000 mg/kg
<b>Dermal LD50 – rabbit:</b>	> 5000 mg/kg
<b>Skin irritation – rabbit:</b>	Practically non-irritating
<b>Eye irritation – rabbit:</b>	Inconsequential irritation

## 12. Ecological Information

Inherent Biodegradability (OECD 302 B): this type of product is not biodegradable but readily bioeliminable. Emulsion polymer biodegradation is generally considered limited and dependant on polymer size and origin of treatment sludge. However, most of these polymers readily absorb onto water treatment sludge and therefore would be bioeliminable from effluents.

Active Sludge Respiratory Inhibition (OECD 209): >100 mg/1 (non-inhibiting).

No data are available for this material. The information shown is based on profiles of compositionally similar materials.

### Environmental Toxicity

Algea (*Selenastrum capricornutum*) 72 hour EC50: 777 ppm (non toxic)

Rainbow trout (*Oncorhynchus mykiss*) 96 hour LC50: >100 ppm (non toxic)

Daphnia magna, 48 hour EC50: >100 ppm (non toxic)

Microtox, 15 minute EC50: 16207 ppm (non toxic)

The above environmental toxicity data are for a compositionally similar material.

## 13. Disposal Considerations

### Procedure

Coagulate the emulsion by the stepwise addition of ferric chloride and lime. Remove the clear supernatant and flush into chemical sewer. Incinerate liquid and contaminated solids in accordance with local, state and federal regulations.

### Waste key for the product as delivered (Germany)

573 03 Dispersions or Emulsions of Plastic Material.

## 14. Transport Information

ADR Class	Not regulated for transport
IMO Class	NR
IATA Class	NR

### Note 1

This Product Safety Data Sheet is issued to cover the following materials:

Jesmonite AC100 Liquids  
Jesmonite AC200 Soft Composite Liquids  
Jesmonite AC300 Multicast Liquids  
Jesmonite AC400 Liquids

## 15. Regulatory Information

### United States

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Act (MSC) Chemical Substance Inventory.

### EEC

This product satisfies all the requirements of the European Inventory of Existing Chemical Substances (EINECS).

### EINECS Information

No.	CAS Reg No.	EINECS
1 Acrylic Polymer	Not hazardous	
2 Individual residual monomers	Not required	
3 Aqua ammonia	1336 – 21 – 6	2156476
4 Water	7732 – 18 – 5	2317912

### Indication of Danger

This product is not hazardous according to EEC Directives 67/548/EEC and 88/379/EEC

## 16. Other Information

### Abbreviations

**ACGIH** = American Conference of Governmental Industrial Hygienists  
**MAK** = Maximum Workplace Concentrations  
**TLV** = Threshold Limit Value  
**PEL** = Permissible Exposure Limit  
**TWA** = Time Weighted Average  
**STEL** = Short-Term Exposure Limit  
**BAC** = Butyl acetate

### Disclaimer of Liability

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