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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

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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

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

Oral LD50 – rat:	> 5000 mg/kg
Dermal LD50 – rabbit:	> 5000 mg/kg
Skin irritation – rabbit:	Practically non-irritating
Eye irritation – rabbit:	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 AC100 Coating Liquids
Jesmonite AC200 Soft Composite Liquids
Jesmonite AC300 Multicast Liquids
Jesmonite AC400 Liquids
Jesmonite AC410 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

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This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS may not be acceptable.