
Section 1: Product and Company information

Product Identification: **Cerita Soluble 28-8**

Company Identification: M. Argüeso & Co., Inc.
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MSDS prepared by: Harvey Fielder, Director of Technology

Intended use: Manufacture of soluble patterns used in the precision investment casting process.

Section 2: Hazards Identification

HMIS Rating: Health: 1
Fire: 1
Reactivity: 0
PPE: See section 8.
[4-Severe; 3-Serious; 2-Moderate; 1-Slight; 0-Minimum]

Solid Form

As supplied and as used (in the solid form) the material presents a minimal hazard. As with all organic chemicals, care should be taken to avoid unnecessary skin contact. Take care when handling heavy packages. Product will burn in a fire and release toxic fumes.

Liquid Form

The product is intended for use in the hot, molten state. Care should be taken to minimize or avoid exposure to product vapors when melting, conditioning and injecting. The molten material can cause severe thermal burns if it contacts the eyes and skin.

Potential Health Effects

Ingestion: Not believed to be toxic but may cause discomfort if swallowed.

Skin contact: Minor skin irritation and penetration may occur.

Inhalation: Vapor inhalation is generally not a problem unless the product is overheated. Extended exposure to vapors may cause headache and throat irritation. Extreme vapor exposure may cause nausea, vomiting, dizziness & drowsiness.

Eye contact: In a finely divided form, i.e. dust or fragments, the product will act as an irritant to the eye, causing pain and possible eye damage.

Chronic / other effects

None known

Section 3: Composition information

A blend of polyethylene glycols, sodium bicarbonate, water soluble polymers, glass fibres & dye.

As supplied, the component(s) listed below can present physical or health hazards;

Component	CAS number	OSHA PEL	SARA 313 listed?	Amount (% w/w)
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Section 4: First aid measures

Eyes: Flush affected eye with clean running water for at least 15 minutes, holding eyelid open. Seek medical attention immediately.

Skin: Wash affected areas with mild soap and water. Remove contaminated clothing and launder before re-use. Seek medical attention if irritation develops or persists.

Ingestion: Induce vomiting immediately as directed by first aid personnel. Seek medical attention.

Inhalation: Remove from exposure to fresh air. If breathing is difficult, a trained individual may administer oxygen. If the casualty is not breathing, a trained person should begin CPR. Get medical attention immediately.

Section 5: Fire Fighting Measures

Combustion: If heated above its flash point (over 180°C/ 356°F, COC) in the presence of air, this product will support combustion. The product burn on a suitable hot, organic substrate, i.e. wood, packaging, etc.

Fire Fighting: If the fire is small and it is safe to do so, fight the fire from a safe distance, using the correct extinguisher and taking extreme care to avoid exposure to combustion products. Do not fight a large fire – obtain immediate professional assistance. Do not enter an enclosed area containing a product fire without proper protective equipment and training in its use, i.e. self contained breathing apparatus.

Extinguishing: Media Use water based foam, dry powder or carbon dioxide extinguishers. The use of liquid water is not recommended since molten product will be dispersed.

Combustion: Products Intense heat, smoke, carbon dioxide, carbon monoxide and complex hydrocarbons.

Other Hazards: As with most solid organic compounds, a high dust concentration of this product may form an explosive atmosphere, subject to ignition by heat and static discharge. This is an unlikely scenario but users should be aware of the risk.

Section 6: Accidental Release Measures

Solid Product: Sweep up the spilled material. If it is clean, place in a suitable container for use. If it is contaminated, collect in a suitable container for disposal. Prevent the spillage entering drainage channels.

Section 7: Handling and Storage

Storage: Keep product in its original packaging until used. Store indoors under dry conditions, avoiding extremes of temperature (keep between 5 & 30°C / 41 & 86°F) and direct sunlight. Keep away from sources of ignition, oxidizing agents and other chemicals.

Handling: Do not eat, drink or smoke whilst using this product. Use only in a well ventilated area and avoid breathing fumes and dust. Avoid skin and eye contact. Avoid heating above 100°C (212°F)

Section 8: Exposure Controls & Personal Protection

The following may be released from the product if heated. Avoid overheating the material above 100°C (212°F).

Occupational Exposure limits:

Substance	CAS No.	OSHA PEL	ACGIH

Engineering Control Measures:

The product should only be used in well ventilated areas. Efficient local exhaust ventilation, to minimise exposure to fume & vapour from the molten product, is strongly recommended, especially in wax melting and pattern assembly areas. Mechanical methods to minimise exposure must take precedence over personal protective measures.

Personal Protective Equipment:

Eyes & Face: Appropriate eye protection should be worn when handling and using the material.

Skin: Impermeable gloves should be worn when using the product. Doing so will avoid long term skin exposure to the product (and other materials used in the pattern making process, release agents, for instance).

General: A good standard of industrial hygiene should be practiced when using this product. Wash hands thoroughly before eating, drinking or smoking. Contaminated clothing should be laundered before reuse.

Section 9: Physical & Chemical Properties (as supplied)

Appearance: Soft, waxy solid
Form: Billets & flakes
Color: Yellow
Softening point: 63 - 68°C (145 - 155°F)
Solubility: Soluble in water
Flash point: >180°C (356°F), Cleveland Open Cup

Section 10: Stability & Reactivity

Stability: Stable as supplied. The product is organic, however, and will be subject to surface oxidation – use the product within 12 months of purchase. Avoid temperatures above 100°C (212°F).

Polymerization: Will not occur under normal processing conditions.

Reactivity: Not reactive under normal processing conditions.

Avoid: Sources of ignition, oxidizing agents.

Section 11: Toxicological Information

As supplied, the product is not considered to be toxic. If melted, the product will release potentially harmful vapors – care must be taken to observe applicable exposure limits. If the precautions advised elsewhere in the document are observed, the product presents little toxicological hazard.

Section 12: Ecological Information

The product is expected to biodegrade in soil and water but care should be taken to avoid short term pollution issues – do not introduce the material (or solutions of it) into any part of the environment external to the manufacturing process.

Section 13: Disposal Information

Soluble pattern materials are leached out using water or dilute acid solutions Disposal of these product solutions, used product, unwanted product and related packaging must be in strict accordance with Federal, State, Local or Provincial regulations. See professional advice if unsure.

Section 14: Transportation Information

This product is non-hazardous for transportation and is not regulated.

Section 15: Regulatory Information

This product contains the following components which are subject to regulatory requirements;

Ingredient	CAS Number	SARA 302 (EHS) TPQ	SARA 304 (EHS) RQ	CERCLA RQ	SARA 313
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SARA 311/312	Mixture				
Acute	Chronic	Fire	Pressure	Reactivity	
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Section 16: Other Information

As of the date issued, the information and recommendations contained herein are believed to be accurate and reliable to the best knowledge of M. Argüeso & Co., Inc. However, this information is furnished without warranty, expressed or implied as to its accuracy or reliability.

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