

28-8SC Cerita[®] Soluble Wax

1. Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier
 Product name : **28-8SC Cerita[®] Soluble Wax**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
 Identified uses : Manufacture of disposable wax patterns in the precision investment casting process.
 Uses advised against : None known
- 1.3 Details of the supplier of the safety data sheet
 Manufacturer/supplier : M. Argüeso & Co., Inc. (D.B.A. Paramelt)
 2817 McCracken Street
 Muskegon, MI 49441, USA
 Tel: (+1) 231 759 7304
 Fax: (+1) 231 759 7570
- Manufacturing facility : Paramelt
 2817 McCracken Street
 Muskegon, MI 49441, USA
 Tel: (+1) 231 759 7304
 Fax: (+1) 231 759 7570
- SDS prepared by : Quality Manager
 E-mail : EHS@argueso.com
- 1.4 Emergency telephone number
 For emergency advice : CHEMTREC (Tel: 800 424 9300)
 Availability : 24 hours

2. Hazards identification

- 2.1 Classification of the substance or mixture
 GHS classification : Not classified as dangerous under GHS/OSHA criteria
- Hazard summary:
 Inhalation : None known
 Eye contact : Molten material will produce thermal burns.
 Skin contact : Molten material will produce thermal burns
 Ingestion : None known
 Other health effects : None known
 Environmental hazards : None known
- 2.2 Label elements : None known
- 2.3 Other hazards : None known

3. Composition information

- Description : Mixture of polyethylene glycol, inorganic fillers & dye.
- Classification : As supplied, the component(s) listed below can present physical or health hazards;

CAS No	%, w/w	Name	Classification according to 21 CFR 1910.1200
The following are included because of country workplace exposure limits – see section 8.1.			



For the full text of the H-statements mentioned in this Section, see Section 16.

4. First-aid measures

4.1 Description of first aid measures

- Inhalation : Exposure to fumes, vapors or smoke of overheated molten product handled in confined areas can result in irritation of the respiratory tracts, and possible discomfort to sensitive individuals. Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
- Eye contact : Exposure to fumes, vapors or smoke of overheated product can result in irritation to eyes. Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of running water for at least 15 minutes, holding eyelid open. Seek medical attention if symptoms persist.
- Skin contact : Wash with plenty of soap and water. Molten product – Cool affected areas with running water to remove heat. Product is water soluble and should wash away. Seek medical attention urgently.
- Ingestion : Do not induce vomiting. Seek medical attention if irritation persists.

4.2 Most important symptoms and effects, both acute and delayed

Burns should be treated as thermal burns.

4.3 Indication of any immediate medical attention and special treatment needed

- Hazards : Contact with molten product may cause severe burns to skin and eyes.
- Treatment : Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water mist, dry chemical, carbon dioxide or foam.
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

1.2 Special hazards arising from the substance or mixture

Watch footing on floors and stairs because of possible spreading of molten material. Material can create slippery conditions. In case of fire hazardous decomposition products may be produced such as: Carbon dioxide, carbon monoxide and complex hydrocarbons. 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.

5.3 Advice for firefighters

In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment.

6.2 Environmental precautions

Should not be released into the environment. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

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.

Molten product : Wear appropriate personal protective equipment – boots, eye protection & heat resistant gloves. Attempt to contain the spill by making dams with sand or earth. Allow the spill to solidify before collecting the material for disposal. Do not let molten product enter drainage channels.

Notification procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

7. Handling and storage

7.1 Precautions for safe handling

Use only in a well ventilated area and avoid breathing fumes. Keep away from sources of ignition. Good housekeeping and controlling of dusts are necessary for the safe handling of this product, although dust generation is unlikely during normal use. Avoid skin and eye contact, especially with the molten material. Do not eat, drink or smoke whilst using this product.

7.2 Conditions for safe storage, including any incompatibilities

Keep product closed in its original packaging until used. Keep dry; avoid temperature extremes (keep between 5 & 30°C / 41 & 86°F) and direct sunlight. Keep away from sources of ignition, oxidizing agents and other chemicals.

7.3 Specific end use(s)

Avoid heating above 135°C (275°F) during the normal usage. Do not let molten product stand unused in melt tanks and injection machines. Stir product at all times.

8. Exposure controls and personal protection

8.1 Control parameters

Occupational exposure limit values : The following may be released from the product in the solid state.

Workplace exposure limits : The following values were obtained from:
<http://limitvalue.ifa.dguv.de>

Country	Long term exposure limit (8 hr. TWA reference period)	Short term exposure limit	Reference
Substance: Dust – respirable, Or, Particulates, not otherwise regulated (respirable fraction)			
CAS #:			
USA - OSHA	5 mg/m ³		Nuisance dust
USA - NIOSH	5 mg/m ³		
Substance: Dust – Total			
CAS #:			
USA - OSHA	15 mg/m ³		Nuisance dust

8.2 Exposure controls

Appropriate engineering controls

Good general ventilation should be used. If applicable, use local exhaust ventilation or other engineering controls to maintain airborne levels of dust (solid product), fume or vapor (molten product) below recommended exposure limits.

Individual protection measures, such as personal protective equipment

- Eyes & Face** : Appropriate eye protection should be worn when handling slabs and pellets, when injecting the product and when assembling patterns. A full face shield is recommended for operations involving the transfer of molten product, i.e. refilling press reservoirs
- Skin** : Solid product – rubber gloves are recommended for prolonged exposure. Molten product – Impervious heat protective gloves.
- Respiratory** : If engineering controls do not maintain airborne concentrations below recommended exposure limits an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate air-purifying filter, cartridge or canister.
- Hygiene** : 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.
- Environmental** : Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

9. Physical and chemical properties

- Physical state at 20°C. : Waxy solid
- Colour : Yellow
- Odour : Characteristic
- Odour threshold : Not determined
- pH : No data available
- Boiling point : No data available
- Melting point (R&B) : approx. 64.2°C. (147.5°F.)
- Flash point : >185°C (365°F), Cleveland Open Cup.
- Evaporation rate : Not determined
- Flammability (solid, gas) : No data available
- Upper/lower flammability : No data available
- Vapor pressure : No data available
- Vapor density : No data available
- Specific gravity : approx. 1.547 (20°C.)
- Solubility in water : Soluble
- Solubility in common organic solvents : Soluble
- Partial coefficient: n-octanol/water : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Viscosity (RS6000) : approx. 6000 cPs (150°F.)
- Explosive properties : No data available
- Oxidizing properties : No data available



10. Stability and reactivity

Reactivity	: None known.
Stability	: Stable as supplied
Possibility of hazardous reactions	: None known
Conditions to avoid	: Avoid holding the product in the molten state when not in use. Excessive thermal exposure will oxidize the product. Generation of gas during decomposition can cause pressure in closed systems. Avoid static discharge.
Incompatible materials	: Strong acids, strong bases, strong oxidizing agents.
Hazardous decomposition products	: Decomposition products depend on air supply and the presence of other materials. They can include and are not limited to: carbon dioxide, carbon monoxide, alcohols, ethers, aldehydes and carboxylic acids.

11. Toxicological information

11.1 Information on toxicological effects

Acute Exposure Inhalation	: Inhalation of dust may irritate respiratory tract.
Eye contact	: Molten product will cause thermal burns on contact with the eyes. Solid product may produce irritation upon contact with the eye.
Skin contact	: Molten product will cause thermal burns on contact with the skin. Solid product may cause skin irritation upon prolonged or repeated exposure.
Ingestion Use	: No data available
Skin corrosion/irritation	: No data available.
Serious eye damage/irritation	: No data available.
Respiratory or skin sensitisation	: No data available.
Germ cell mutagenicity	: No data available.
Carcinogenicity	: No data available.
Toxicity for reproduction	: No data available.
Summary of evaluation of the CMR properties	: No data available.
STOT – single exposure	: No data available.
STOT – repeated exposure	: No data available.
Aspiration hazard	: No data available

12. Ecological information

No specific ecological information has been determined for this product. The product is soluble in water, but should not pose a serious threat to the environment.

12.1 Toxicity : No data available

Polyethylene glycol	
LC50 fish	73493 mg/l (Static test, Exposure time: 96h – Species: Pimephales promelas)
EC50 Daphnia	35252 mg/l (Static test, Exposure time: 48 h – Species: Daphnia magna)
EC50 Bacteria	>5000 mg/l (Stactic test, Exposure time: 16 h)

12.2 Persistence and degradability : No data available

12.3 Bioaccumulative potential : No data available

12.4 Mobility in soil : No data available

12.5 Results of PBT and vPvB assessment : No data available

12.6 Other adverse effects : No data available

Users of the product should, however, ensure that it is stored, handled and disposed of in such a manner that it is not released to the environment. Spent material from the flash fire furnace or autoclave must therefore be stored in such a manner as to prevent environmental contamination, either by solid product or rain water run-off from it.

13. Disposal considerations

13.1 Waste treatment methods

General information : Dispose of used product, unwanted product and related packaging in strict accordance with waste disposal legislation and any local authority requirements.

14. Transportation information

ADR/RID : Solid forms of this product are not regulated.

IMDG : Solid forms of this product are not regulated.

IATA : Solid forms of this product are not regulated.

15. Regulatory information

15.1 US Federal regulations

TSCA : All components of this product are listed or exempted from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

EPCRA section 302 : This material contains no extremely hazardous substances.

SARA 313 : Not applicable.

SARA 311/312 : Immediate: No; Delated: No; Fire: No; Pressure: No; Reactivity: No.



15.2 US State regulations

California Proposition 65 : This product contains a chemical known to the state of California to cause cancer.

Component	CAS #	Amount
Acetaldehyde	75-07-0	<= 100ppm

16. Other information

NFPA (National Fire Protection Association)

NFPA health hazard : 0
 NFPA fire hazard : 1
 NFPA reactivity : 0

HMIS III Rating

Health : 0
 Flammability : 1
 Physical Hazard : 0
 Personal Protection : See section 8 of SDS

Revision information : New SDS

Key literature references and sources for data :

Supplier MSDS/SDS

ECHA –Guidance on the compilation of safety data sheets, Version 2.0, Dated December 2013

GESTIS - International limit values for chemical agents database (English)

GESTIS – database on hazardous substances (English)

21 CFR 1910

ANSI Z400.1/Z129.1-2010

Other internet sources.

Full text of the H-statements referred to under section 3.
 Not classified.

Training information : No data available.

Disclaimer

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