Plastomelt™ LM 120 M

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

1.1 Product identifier
Product name : **Plastomelt™ LM 120 M**

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses : A hot melt for the converting industry.
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

Manufacturing facility : Paramelt
2817 McCracken Street
Muskegon, MI 49441, USA
Tel: (+1) 231 759 7304

SDS prepared by : Quality Manager
E-mail : SHE_USA@paramelt.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 : This material is classified as hazardous under GHS/OSHA criteria

Hazard summary:
Inhalation : Vinyl acetate and wax fumes: May cause respiratory tract irritation.
Eye contact : Molten material will produce thermal burns.
Resin acids and rosin acids fumerated, esters with pentaerythritol: Causes serious eye irritation.
Skin contact : May cause allergic skin reaction. Molten material will produce thermal burns.
Resin acids and rosin acids fumerated, esters with pentaerythritol: May cause allergic skin reaction.
Vinyl acetate: May cause skin irritation. May cause: Discomfort, itching, redness, or swelling.
Ingestion : None known
Other health effects : **Vinyl acetate:** Possible human cancer hazard.
Environmental hazards : None known

2.2 Label elements :

Pictogram:

Signal word : Warning

Hazard statements : H317 May cause allergic skin reaction
H319 Causes serious eye irritation

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H351 Suspected of causing cancer

Vinyl acetate is present in the preparation at <0.2%, as this concentration is less than 1.0%, the information is required on the SDS for a product. However a warning label is optional.

Vinyl acetate has been shown to be carcinogenic in rodents when administered at very high concentrations via the inhalation and oral routes of exposure. Tumors were observed in tissues that directly contact vinyl acetate, i.e., the nose and upper respiratory tract following inhalation or the oral cavity/upper digestive tract following ingestion. Research on the mechanism of nasal and upper respiratory tract tumor induction suggests that these carcinogenic effects are not expected to occur in humans exposed to low concentrations via occupational or environmental pathways.

IARC Classification : Vinyl Acetate: 2B

Precautionary statements : P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/vapor.
P280 Wash face, hands and any exposed skin thoroughly after handeling. Wear protective gloves, protective clothing, eye protection, and face protection.
P303 IF ON SKIN: Wash with plenty of soap and water.
P305 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P337 IF eye irritation persists or skin irritation or rash occurs: Get medical advice/attention.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P403 + P404 Store in a dry place. Store in a closed container.
P405 Store locked up.
P501 Dispose of contents and container in accordance with local regulations.

2.3 Other hazards : May form combustible mixtures in air (during handling). Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited. Material can accumulate static charges which may cause an explosion. Spilled pellets present a slipping hazard on hard surfaces.

3. Composition information

Description : Mixture of waxes, resins & polymers

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
108-05-4	<0.2	Vinyl acetate	Carc. 2; H351 Flam. Liq. 2; H225 Acute Tox Oral, 5: H303 Acute Tox. Inh 4; H332 STOT SE 3; H335
94581-15-4	10 - 30	Resin acids and rosin acids fumerated, esters with pentaerythritol	Skin Sens. 1; H317 Eye Dam. 2A; H319
The following are included because of country workplace exposure limits – see section 8.1.			
8002-74-2	15-50	Paraffin wax	Not classified

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

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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. Do not remove adhering material. Seek medical attention immediately.
Skin contact	:	Wash with soap and water. Molten product – Cool affected areas with running water to remove heat. In general, do not remove adhering material - it may be necessary to cut through material surrounding a limb to prevent a tourniquet effect. Seek medical attention urgently.
Ingestion	:	Do not induce vomiting. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from skin is not necessary

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.

5.2 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.

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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. Note that pelletized product can travel some distance when spilled. 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. A water mist can be used to cool a spill but take extreme care when doing so. 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 and dust (dust is unlikely). 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 160°C (320°F) during the normal application process. Do not let molten product stand unused for extended periods of time.

8. Exposure controls and personal protection

8.1 Control parameters

Occupational exposure limit values	:	The following may be released from the product in the molten state.
Workplace exposure limits	:	The following values were obtained from: http://limitvalue.ifa.dguv.de

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Country	Long term exposure limit (8 hr. TWA reference period)	Short term exposure limit (15 minute reference period)	Notes
Substance:	**Paraffin Wax Fume**		
CAS #:	**8002-74-2**		
Australia	2 mg/m^3		
Canada - Ontario	2 mg/m^3		
Canada - Québec	2 mg/m^3		
New Zealand	2 mg/m^3		
People's Republic of china	2 mg/m^3	4 mg/m^3	STEL 15 minute average value
Singapore	2 mg/m^3		
South Korea	2 mg/m^3		
USA - NIOSH	2 mg/m^3		
Substance:	**Vinyl Acetate**		
CAS #:	**108-05-4**		
Australia	10 ppm, 35 mg/m^3	20 ppm, 70 mg/m^3	
Canada - Ontario	10 ppm	15 ppm	
Canada - Québec	10 ppm, 35 mg/m^3	15 ppm, 53 mg/m^3	
New Zealand	10 ppm, 35 mg/m^3	20 ppm, 70 mg/m^3	
People's Republic of china	10 mg/m^3	15 mg/m^3	STEL 15 minute average value
Singapore	10 ppm, 35 mg/m^3	15 ppm, 53 mg/m^3	
South Korea	10 ppm	15 ppm	
USA - NIOSH		4 ppm, 15 mg/m^3	STEL Ceiling limit value (15 min)
USA - ACGIH	10 ppm	15 ppm	
Substance:	**Resin acids and rosin acids fumerated, esters with pentaerythritol**		
CAS #:	**94581-15-4**		
None.			
Exposure to the following is unlikely given that the product form and its intended application.			
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		
Exposure to the following is unlikely given that the product form and its intended application.			
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 – cotton gloves. 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.

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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	
Color	:	Yellow	
Odor	:	Waxy, characteristic	
Odor threshold	:	Not determined	
pH	:	No data available	
Boiling point	:	No data available	
Melting point (DMP)	:	approx. 87.8°C. (190.0°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. 0.99	(20°C.)
Solubility in water	:	Insoluble	
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. 1900 cPs	(120ºC.)
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	:	The product is organic, however, and will be subject to surface oxidation. Avoid holding the product in the molten state when not in use. Excessive thermal exposure will degrade the product.
Incompatible materials	:	Strong oxidizing agents.
Hazardous decomposition products	:	Carbon dioxide, carbon monoxide.

11. Toxicological information

11.1 Information on toxicological effects

Acute Exposure

Inhalation : Wax fumes have been reported to be irritating to the respiratory tract, especially to sensitized persons. Vinyl Acetate: Harmful if inhaled.

Vinyl Acetate	
4 hour(s) LC50 (Vapor)	15.8 mg/l (Rat)

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Eye contact : Molten product will cause thermal burns on contact with the eyes.

Resin acids and rosin acids fumerated, esters with pentaerythritol	
Causes serious eye irritation.	

Skin contact : Molten product will cause thermal burns on contact with the skin.

Ingestion Use : No data available for the product itself.

Vinyl Acetate	
LD50	3470 mg/kg (Rat)

Skin corrosion/irritation : No data available.

Serious eye damage/irritation : No data available.

Respiratory or skin sensitisation : No data available for the product itself.

Resin acids and rosin acids fumerated, esters with pentaerythritol	
Skin sensitization	Positive for Guinea Pig

Germ cell mutagenicity : No data available.

Carcinogenicity : No data available for the product itself.
See section 2 for discussion of the carcinogenic status of vinyl acetate.

Toxicity for reproduction : No data available.

Summary of evaluation of the CMR properties : No data available.

STOT – single exposure : No data available for the product itself.
Vinyl Acetate: May cause respiratory irritation.

STOT – repeated exposure : No data available.

Aspiration hazard : No data available

12. Ecological information

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

12.1 Toxicity : No data available for the product itself

Vinyl Acetate	
LC50 fish	24.0 mg/l (Static test, Exposure time: 96h – Species: Fathead Minnow)
EC50 Daphnia	12.6 mg/l (Static test, Exposure time: 48 h – Species: Daphnia)
ErC50 Bacteria	12.7 mg/l (Static test, Exposure time: 72 h - Algae)

12.2Persistence and degradability : No data available for the product itself

Resin acids and rosin acids fumerated, esters with pentaerythritol	
OECD 301D Ready Biodegradability – Closed Bottle Test	Not readily biodegradable

12.3Bioaccumulative potential : No data available for the product itself

Resin acids and rosin acids fumerated, esters with pentaerythritol	
$LogP_{ow}$	2.4 - 6.5; high potential

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12.4Mobility in soil : No data available for the product itself

Resin acids and rosin acids fumerated, esters with pentaerythritol	
Soil/water partition coefficient (K_{OC})	728

12.5Results of PBT and vPvB assessment : No data available.

12.6Other 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.

13. Disposal considerations

13.1Waste 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.

Disposal methods : Wherever possible, spent material should be returned to the manufacturer, or other qualified reprocessor, for reclamation.

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.

CWA : Plastic pellets are defined by the US EPA under the Clean Water Act (40CFR122.26) as a “significant material” which requires any industrial plant that may expose pellets to storm water to secure a storm water permit. Violations of the rule carry the same penalties as other Clean Water Act violations. Pellets found in storm water runoff are subject to EPA regulations with the potential for substantial fines and penalties.

EPCRA section 302 : Vinyl Acetate, TPQ: 1000 lb.

SARA 313 : Vinyl Acetate, 0.1% de minimis concentration..

SARA 311/312 : Delayed health

15.2 US State regulations

California Proposition 65 : Carcinogens: None
Adverse reproductive effects: None

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16. Other information

NFPA (National Fire Protection Association)

NFPA health hazard	:	2
NFPA fire hazard	:	1
NFPA reactivity	:	0

HMIS III Rating

Health	:	2
Flammability	:	1
Physical Hazard	:	0
Personal Protection	:	See section 8 of SDS

Revision information	:	
Changes from Rev: 1.0	:	Updated to reflect flow down of resin SDS requirements. Removed fax numbers and email address
Key literature references and sources for data	:	

Supplier MSDS
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:

H225	:	Highly flammable liquid and vapor.
H303	:	Maybe harmful if swallowed.
H317	:	May cause allergic skin reaction.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H351	:	Suspected of causing cancer.
Training information	:	No data available.

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