

F-99 Formula, ORANGE+ Formula and Print2Cast Formula

Safety Data Sheet

Revision Date: 12/6/2016

SECTION 1: Identification

1.1. Identification

Product name : F-99 Formula, ORANGE+ Formula and Print2Cast Formula

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Manufacturing

1.3. Details of the supplier of the safety data sheet

Machinablewax.com
1302 S. West Silver Lake Road
Traverse City, MI 49685
USA

1.4. Emergency telephone number

Emergency number : 231-275-7000

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Polyethylene	(CAS No) 9002-88-4	5 - 40	Not classified
Hydrocarbon waxes, petroleum, clay-treated microcrystalline	(CAS No) 64742-42-3	> 40	Not classified
Paraffin waxes and Hydrocarbon waxes, microcrystalline	(CAS No) 63231-60-7	> 5	Not classified
2,6-Di-tert-butyl-p-cresol	(CAS No) 128-37-0	< 1	Aquatic Chronic 1, H410
Dye	None	< 1	Not classified
Vinyl acetate	(CAS No) 108-05-4	< 0.05	Flam. Liq. 2, H225 Carc. 2, H351

Full text of classification categories and H statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.
 First-aid measures after skin contact : No specific first aid necessary for this route of exposure.
 First-aid measures after eye contact : Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
 First-aid measures after ingestion : If the material is swallowed, get immediate medical attention or advice. DO NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.
 Symptoms/injuries after skin contact : None under normal use.
 Symptoms/injuries after eye contact : None under normal use.

F-99 Formula, ORANGE+ Formula and Print2Cast Formula

Safety Data Sheet

Symptoms/injuries after ingestion : None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
 Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
 Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

None.

6.3. Methods and material for containment and cleaning up

For containment : No special measures required.
 Methods for cleaning up : Collect spillage. Attempt to reclaim the product, if this is possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage conditions required.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Polyethylene (9002-88-4)

Not applicable

Paraffin waxes and Hydrocarbon waxes, microcrystalline (63231-60-7)

Not applicable

2,6-Di-tert-butyl-p-cresol (128-37-0)

ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (inhalable fraction and vapor)
NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³

Vinyl acetate (108-05-4)

ACGIH	ACGIH TWA (ppm)	10 ppm
ACGIH	ACGIH STEL (ppm)	15 ppm
NIOSH	NIOSH REL (ceiling) (mg/m ³)	15 mg/m ³
NIOSH	NIOSH REL (ceiling) (ppm)	4 ppm

Dye

Not applicable

F-99 Formula, ORANGE+ Formula and Print2Cast Formula

Safety Data Sheet

Hydrocarbon waxes, petroleum, clay-treated microcrystalline (64742-42-3)

Not applicable

8.2. Exposure controls

Appropriate engineering controls	: None required under normal product handling conditions.
Hand protection	: None required under normal product handling conditions.
Eye protection	: None required under normal product handling conditions.
Skin and body protection	: Wear suitable working clothes.
Respiratory protection	: None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: Orange or Blue
Odor	: None
Odor threshold	: No data available
pH	: No data available
Melting point	: 115.6 °C (240 °F)
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 301.7 °C (575 °F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.92
Solubility	: Insoluble.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: 1790 cP @ 270 °F
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

Not determined.

10.6. Hazardous decomposition products

Not determined.

F-99 Formula, ORANGE+ Formula and Print2Cast Formula

Safety Data Sheet

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Polyethylene (9002-88-4)	
ATE US (oral)	8000000.000 mg/kg
Paraffin waxes and Hydrocarbon waxes, microcrystalline (63231-60-7)	
LD50 oral rat	10000 mg/kg
LD50 dermal rabbit	> 3600 mg/kg
ATE US (oral)	10000.000 mg/kg body weight
2,6-Di-tert-butyl-p-cresol (128-37-0)	
LD50 oral rat	890 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE US (oral)	890.000 mg/kg
Vinyl acetate (108-05-4)	
LD50 oral rat	2900 mg/kg
LD50 dermal rabbit	2335 mg/kg
LC50 inhalation rat (mg/l)	11400 mg/m ³ (Exposure time: 4 h)
ATE US (oral)	2920.000 mg/kg
ATE US (dermal)	2320.000 mg/kg
Hydrocarbon waxes, petroleum, clay-treated microcrystalline (64742-42-3)	
LD50 oral rat	10000 mg/kg
LD50 dermal rabbit	> 3600 mg/kg
ATE US (oral)	10000.000 mg/kg body weight

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitization : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified

Polyethylene (9002-88-4)	
IARC group	3 - Not classifiable
2,6-Di-tert-butyl-p-cresol (128-37-0)	
IARC group	3 - Not classifiable
Vinyl acetate (108-05-4)	
IARC group	2B - Possibly carcinogenic to humans
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified
 Specific target organ toxicity (single exposure) : Not classified
 Specific target organ toxicity (repeated exposure) : Not classified
 Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Vinyl acetate (108-05-4)	
LC50 fish 1	14 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
LC50 fish 2	15.04 - 21.54 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

12.2. Persistence and degradability

No additional information available

F-99 Formula, ORANGE+ Formula and Print2Cast Formula

Safety Data Sheet

12.3. Bioaccumulative potential

Paraffin waxes and Hydrocarbon waxes, microcrystalline (63231-60-7)	
Log Pow	> 6
2,6-Di-tert-butyl-p-cresol (128-37-0)	
BCF fish 1	230 - 2500
Log Pow	4.17
Vinyl acetate (108-05-4)	
Log Pow	0.73

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available
 Effect on the global warming : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
 Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Polyethylene (9002-88-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C))
Paraffin waxes and Hydrocarbon waxes, microcrystalline (63231-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
2,6-Di-tert-butyl-p-cresol (128-37-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Vinyl acetate (108-05-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb
SARA Section 313 - Emission Reporting	0.1 %
Hydrocarbon waxes, petroleum, clay-treated microcrystalline (64742-42-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. US State regulations

2,6-Di-tert-butyl-p-cresol (128-37-0)
U.S. - Massachusetts - Right To Know List U.S. - Minnesota - Hazardous Substance List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

F-99 Formula, ORANGE+ Formula and Print2Cast Formula

Safety Data Sheet

Vinyl acetate (108-05-4)

U.S. - Massachusetts - Right To Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 2	Carcinogenicity Category 2
Flam. Liq. 2	Flammable liquids Category 2
H225	Highly flammable liquid and vapor
H351	Suspected of causing cancer
H410	Very toxic to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product