



SAFETY DATA SHEET

According to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **MASTERBATCH F**
Type of product: Mixture.

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

Identified uses: Processing aid for industrial applications.
Uses advised against: None.

1.3. Details of the supplier of the safety data sheet

Company: STARSOURCE, LLC
130 S. Patterson Ave. #878
Santa Barbara, CA 93111
USA
Tel: 805-563-7500

1.4. Emergency telephone number

24-hour emergency number: 800-424-9300 CHEMTREC (CCN 20412), Outside U.S. 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

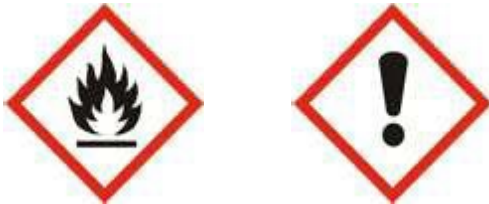
Flam. Liq. 3;H226, Skin Irrit. 2;H315, Eye Irrit. 2A;H319, STOT SE 3;H335

2.2. Label elements

Labelling according to paragraph (f) of 29 CFR 1910.1200:

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Hazard symbol(s):



Signal word:

Warning

Hazard statement(s):

H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation.

Precautionary statement(s):

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P284 - In case of inadequate ventilation wear respiratory protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

None.

For explanation of abbreviations see Section 16.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable, this product is a mixture.

3.2. Mixtures

Hazardous components

Aliphatic alcohols

Concentration/ -range:

> 75%

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Classification according to paragraph (d)
of 29 CFR 1910.1200:

Flam. Liq. 3;H226, Eye Irrit. 2A;H319, STOT SE 3;H335

Proprietary Blend

Concentration/ -range:

< 25%

CAS Number:

N/A

Notes

The specific chemical identity and/or exact concentration of composition has been withheld as a trade secret.

For explanation of abbreviations see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if symptoms persist.

Skin contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Eye contact:

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion:

Do NOT induce vomiting. Rinse mouth with water. Get medical attention immediately.

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

Irritating to eyes, respiratory system and skin.

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

None under normal use.

Other information:

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media:

Water spray. Carbon dioxide (CO₂). Dry chemical. Foam.

Unsuitable extinguishing media:

High volume water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:

Thermal decomposition can lead to release of irritating gases and vapors. Thermal decomposition may produce: carbon oxides (CO_x).

5.3. Advice for firefighters

Protective measures:

Wear self-contained breathing apparatus and protective suit.

Other information:

Cool containers / tanks with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:

Avoid breathing vapor or mist. Avoid contact with skin, eyes and clothing. Remove source of heat, sparks, flame, impact, friction or electricity.

Protective equipment:

Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:

Prevent further leakage or spillage if safe to do so. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

As with all chemical products, do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Non-sparking tools should be used. Take measures to prevent the build up of electrostatic charge.

Small spills:

Do not flush with water. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:

Do not flush with water. Do not allow solution to dry. Contain with dike. Pump into suitable and properly labelled containers.

Residues:

After cleaning, flush away traces with water.

6.4. Reference to other sections

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SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations;

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Keep away from heat and sources of ignition. Use only in well-ventilated areas. Wear necessary protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep containers tightly closed in a dry, cool and well-ventilated place. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from oxidizing agents and strongly acid or alkaline materials.

7.3. Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Aliphatic alcohols

OSHA: 100 mg/m³ (8 hours) - 165 mg/m³ (15 minutes)

ACGIH: 25 ppm (8 hours) - 40 ppm (15 minutes)

8.2. Exposure controls

Appropriate engineering controls:

Use explosion-proof ventilation equipment. Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment:

a) Eye/face protection:

Safety glasses with side-shields.

b) Skin protection:

i) Hand protection: PVC or other plastic material gloves.

ii) Other: Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.

c) Respiratory protection:

Not required ; except in case of aerosol formation.

d) Additional advice:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday.

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Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance:	Liquid, Colorless to pale yellow.
b) Odor:	Mild.
c) Odor Threshold:	No data available.
d) pH:	Not applicable.
e) Melting point/Freezing point:	< 0 °C
f) Initial boiling point and boiling range:	> 100 °C
g) Flash point:	< 39 °C
h) Evaporation rate:	No data available.
i) Flammability (solid, gas):	Not applicable.
j) Upper/lower flammability or explosive limits:	No data available
k) Vapor pressure:	No data available.
l) Vapor density:	No data available.
m) Relative density:	0.8 – 0.9
n) Solubility(ies):	Insoluble in water.
o) Partition coefficient n-octanol/water (log value):	No data available.
p) Auto ignition temperature:	> 200 °C
q) Decomposition temperature:	No data available.
r) Viscosity:	No data available.
s) Kinematic viscosity:	No data available.
t) Explosive properties:	Not expected to be explosive based on chemical structure.
u) Oxidizing properties:	Not expected to be explosive based on chemical structure.
v) Particle characteristics:	No data available.

9.2 Other information

None.

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SECTION 10: Stability and reactivity

10.1. Reactivity

Unstable if heated. Hazardous polymerization does not occur.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.4. Conditions to avoid

Avoid extremes of temperature. Keep away from heat and sources of ignition. Take precautionary measures against static discharges.

10.5. Incompatible materials

Incompatible with oxidizing agents. Strong acids and strong bases.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Thermal decomposition may produce: carbon oxides (COx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity: LD50/oral/rat = 2500 - 5000 mg/kg (Estimated)

Acute dermal toxicity: LD50/dermal/rat = 2000 - 5000 mg/kg. (Estimated)

Acute inhalation toxicity: The product is not expected to be toxic by inhalation.

Skin corrosion/irritation: Irritating.

Serious eye damage/eye irritation: Irritating.

Respiratory/skin sensitisation: The product is not expected to be sensitizing.

Mutagenicity: Not mutagenic.

Carcinogenicity: Not carcinogenic.

Reproductive toxicity: Not toxic for reproduction.

STOT - Single exposure: Irritating to respiratory tract.

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STOT - Repeated exposure: No known effect.
Aspiration hazard: No known effects.

Relevant information on the hazardous components:

Aliphatic alcohols

Acute oral toxicity: LD50/oral/rat = 2590 mg/kg (OECD 401)
Acute dermal toxicity: LD50/dermal/rabbit = 2870 mg/kg (OECD 402)
Acute inhalation toxicity: LC50/inhalation/4 hours/rat > 16000 mg/m³ (OECD 403)
Skin corrosion/irritation: Slightly irritating. (OECD 404)
Serious eye damage/eye irritation: Irritating. (OECD 405)
Respiratory/skin sensitisation: Not sensitizing. (OECD 406)
Mutagenicity: Negative in the Ames Test (OECD 471). Negative in the In Vitro Mammalian Chromosome Aberration Test (OECD 473). Negative in the In vitro Mammalian Cell Gene Mutation Test (OECD 476).
Carcinogenicity: Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic. By analogy with similar substances, this substance is not expected to be carcinogenic. (OECD 451)
Reproductive toxicity: By analogy with similar substances, this substance is not expected to be toxic for reproduction.
NOAEL/rat = 300 mg/kg/day (OECD 422)
Prenatal Development Toxicity Study (OECD 414)
- NOAEL/Maternal toxicity/rat = 4106 mg/m³
- NOAEL/Developmental toxicity/rat = 4106 mg/m³
STOT - Single exposure: Irritating to respiratory tract.
STOT - Repeated exposure: NOAEC/inhalation/180 h/rat = 3698 mg/m³ (OECD 412)
NOAEL/oral/rat = 30 mg/kg/day (OECD 422) (Based on results obtained from tests on analogous products)
Aspiration hazard: No known effects.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity to fish: LC50/Pimephales promelas/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates: EC50/Daphnia magna/48 hours > 100 mg/L (Estimated)

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<i>Acute toxicity to algae:</i>	IC50/Pseudokirchneriella subcapitata/72 hours > 100 mg/L (Estimated)
<i>Chronic toxicity to fish:</i>	No data available.
<i>Chronic toxicity to invertebrates:</i>	No data available.
<i>Toxicity to microorganisms:</i>	No data available.
<i>Effects on terrestrial organisms:</i>	No data available.
<i>Sediment toxicity:</i>	No data available.

Relevant information on the hazardous components:

Aliphatic alcohols

<i>Acute toxicity to fish:</i>	NOEC/Pimephales promelas/96 hours > 92.4 mg/L (OECD 203)
<i>Acute toxicity to invertebrates:</i>	EC50/Daphnia magna/48 hours = 337 mg/L (OECD 202)
<i>Acute toxicity to algae:</i>	IC50/Pseudokirchneriella subcapitata/72 hours = 139 mg/L (OECD 201)
<i>Chronic toxicity to fish:</i>	No data available.
<i>Chronic toxicity to invertebrates:</i>	NOEC/Daphnia magna/21 days = 30 - 35 mg/L (OECD 211) (Based on results obtained from tests on analogous products)
<i>Toxicity to microorganisms:</i>	EC20/activated sludge/3 hours > 100 mg/L (OECD 209)
<i>Effects on terrestrial organisms:</i>	No data available. Readily biodegradable, exposure to soil is unlikely.
<i>Sediment toxicity:</i>	No data available. Readily biodegradable, exposure to sediment is unlikely.

12.2. Persistence and degradability

Information on the product as supplied:

<i>Degradation:</i>	Based on the degradability data of the components, this product is expected to be readily (bio)degradable according to OECD criteria.
<i>Hydrolysis:</i>	No data available.
<i>Photolysis:</i>	No data available.

Relevant information on the hazardous components:

Aliphatic alcohols

<i>Degradation:</i>	Readily biodegradable. 85% / 28 days (OECD 301 F)
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Hydrolysis: No data available.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): No data available.

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Aliphatic alcohols

Partition co-efficient (Log Pow): 1.57

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.

K_{oc}: No data available.

Relevant information on the hazardous components:

Aliphatic alcohols

K_{oc}: 12.95 @ 20°C

12.5. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Contaminated packaging:

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Liquid and vapor can be dangerous. Do not cut or burn or expose empty containers to heat flame or other sources of ignition. Completely drain containers and retain product residues. Dispose in accordance with local and national regulations. Can be landfilled or incinerated, when in compliance with local and national regulations.

Recycling:

The product and its packaging are not suitable for recycling.

SECTION 14: Transport information

Land transport (DOT)

14.1 UN number	UN 2053
14.2 UN proper shipping name	Methyl Isobutyl Carbinol , mixture
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	None.
14.6 Special precautions for user	None.

Sea transport (IMDG)

14.1. UN number	UN 2053
14.2. UN proper shipping name	Methyl Isobutyl Carbinol , mixture
14.3. Transport hazard class(es)	3
14.4. Packing group	III
14.5. Environmental hazards	None.
<i>Marine pollutant</i>	No
14.6. Special precautions for user	None.
<i>EmS</i>	F-E, S-D
14.7. Maritime transport in bulk according to IMO instruments	Not applicable.

Air transport (IATA)

14.1. UN number	UN 2053
14.2. UN proper shipping name	Methyl Isobutyl Carbinol , mixture
14.3. Transport hazard class(es)	3
14.4. Packing group	III

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14.5. Environmental hazards None.

14.6. Special precautions for user None.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Information on the product as supplied:

TSCA Chemical Substances Inventory:

All components of this product are either listed as active on the inventory or are exempt from listing.

US SARA Reporting Requirements:

SARA (Section 311/312) hazard class:

Acute. Fire.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:

Not concerned.

Section 304 - Reportable Quantity:

Not concerned.

Section 313 (De minimis concentration):

Contains one or more of the listed substances. Glycol Ether(s)

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:

Contains one or more of the listed substances.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:

Not concerned.

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:

Contains one or more of the listed substances. Glycol Ether(s)

RCRA status:

Hazardous waste, if discarded

California Proposition 65 Information:

Not concerned.

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SECTION 16: Other information

NFPA and HMIS Ratings:

NFPA:

Health:	2
Flammability:	2
Instability:	0



HMIS:

Health:	2
Flammability:	2
Physical Hazard:	0
PPE Code:	C

This data sheet contains changes from the previous version in section(s):

SECTION 8. Exposure controls/personal protection, SECTION 15. Regulatory information, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms

STOT = Specific target organ toxicity

Abbreviations

Eye Irrit. 2A = Serious eye damage/eye irritation Category Code 2A

Flam. Liq. 3 = Flammable liquid Category Code 3

Skin Irrit. 2 = Skin corrosion/irritation Category Code 2

STOT SE 3 = Specific target organ toxicity — single exposure Category Code 3

Hazard statements

H226 - Flammable liquid and vapour

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

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Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 29 CFR 1910.1200

Version: 17.01.a

LDMS050

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.