SAFETY DATA SHEET

Revision Date 19-Jun-2015 Version 1

1. IDENTIFICATION

Product identifier

Product Name MF IND YELLOW LF

Other means of identification

 Product Code
 TP540SP

 UN/ID no.
 UN1950

 SKU(s)
 None

Recommended use of the chemical and restrictions on use
Recommended Use
Uses advised against
No information available

Details of the supplier of the safety data sheet

Supplier Address

TISCO

PO Box 82222 Lincoln, NE 68501 Phone: 402-476-6558 Fax: 402-476-6749

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable aerosols	Category 1

Emergency Overview

Danger

Hazard statements

Causes serious eye irritation

May cause genetic defects

May cause cancer

May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Extremely flammable aerosol



Appearance No information available

Physical state Aerosol

Odor No information available

Precautionary Statements - Prevention

Obtain special instructions before use

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

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

Causes mild skin irritation

Unknown acute toxicity

5.49% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Acetone	67-64-1	15 - 40	*
Solvent Naphtha, Medium Aliphatic	64742-88-7	10 - 30	*
Propane	74-98-6	7 - 13	*
Butane	106-97-8	5 - 10	*
Ethylene Glycol Butyl Ether	111-76-2	1 - 5	*
Titanium dioxide	13463-67-7	0.1 - 1	*
Ethyl Benzene	100-41-4	0.1 - 1	*

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Revision Date 19-Jun-2015

General advice Immediate medical attention is required. In case of accident or unwellness, seek medical

advice immediately (show directions for use or safety data sheet if possible). If symptoms

persist, call a physician.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and

upper eyelids. Consult a physician. If symptoms persist, call a physician.

Skin Contact Wash off immediately with plenty of water. Call a physician immediately. Wash off

immediately with soap and plenty of water while removing all contaminated clothes and

shoes. If skin irritation persists, call a physician.

Inhalation Immediate medical attention is required. Remove to fresh air. Avoid direct contact with skin.

Use barrier to give mouth-to-mouth resuscitation. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately. Move to fresh air in case of

accidental inhalation of vapors.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately. Never give

anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. Clean mouth

with water and drink afterwards plenty of water. Call a physician.

Self-protection of the first aider Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

In the event of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate

ventilation, especially in confined areas. Use personal protective equipment as required.

Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do

not flush into surface water or sanitary sewer system. See Section 12 for additional

ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or

tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal

binder, sawdust). Pick up and transfer to properly labeled containers. Cover liquid spill with sand, earth or other non-combustible absorbent material. Soak up with inert absorbent

material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks,

flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Avoid contact with skin, eyes or clothing. Use with local exhaust ventilation. Use

personal protective equipment as required. Do not breathe

dust/fume/gas/mist/vapors/spray. Avoid breathing vapors or mists. Contents under

pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into

opening on top of can.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep

containers tightly closed in a cool, well-ventilated place.

Incompatible materials Strong acids. Strong oxidizing agents. Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m ³	IDLH: 2500 ppm TWA: 250 ppm
07 04 1	1 W. 250 pp	(vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m³	TWA: 590 mg/m ³
		(vacated) STEL: 2400 mg/m³ The	
		acetone STEL does not apply to the	
		cellulose acetate fiber industry. It is	
		in effect for all other sectors	
		(vacated) STEL: 1000 ppm	.=
Propane	: See Appendix F: Minimal	TWA: 1000 ppm	IDLH: 2100 ppm
74-98-6	Oxygen Content	TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m ³
		(vacated) TWA: 1000 ppm ³	TWA. 1800 mg/m²
Butane	STEL: 1000 ppm	(vacated) TWA: 800 ppm	TWA: 800 ppm
106-97-8		(vacated) TWA: 1900 mg/m ³	TWA: 1900 mg/m ³
Ethylene Glycol Butyl Ether	TWA: 20 ppm	TWA: 50 ppm	IDLH: 700 ppm
111-76-2		TWA: 240 mg/m ³	TWA: 5 ppm
		(vacated) TWA: 25 ppm	TWA: 24 mg/m ³
		(vacated) TWA: 120 mg/m ³	
		(vacated) S* S*	
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m ³

Ethyl Benzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm
		(vacated) STEL: 125 ppm	STEL: 545 mg/m ³
		(vacated) STEL: 545 mg/m ³	

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962

(11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protectionNo special technical protective measures are necessary.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and

clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Aerosol

AppearanceNo information availableOdorNo information availableColorNo information availableOdor thresholdNo information available

Property Values Remarks • Method

pH No information available
Melting point/freezing point No information available
Boiling point / boiling range
Flash point No information available
>= -42 °C / -43 °F
-104 °C / -156 °F

Evaporation rate No information available Flammability (solid, gas) No information available

Flammability Limit in Air

Upper flammability limit:
Lower flammability limit:
Vapor pressure
Vapor density

No information available
No information available
No information available
No information available

Specific Gravity 0.78

Water solubility No information available Solubility in other solvents No information available Partition coefficient No information available Autoignition temperature No information available **Decomposition temperature** No information available Kinematic viscosity No information available **Dynamic viscosity** No information available **Explosive properties** No information available Oxidizing properties No information available

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Other Information

Softening pointNo information availableMolecular weightNo information availableVOC Content (%)No information available

Density 6.15 lbs/gal

Bulk density

No information available

Percent solids by weight 23.0% Percent volatile by weight 42.5% Percent solids by volume 14.6% Actual VOC (lbs/gal) 2.8 Actual VOC (grams/liter) 331.4 EPA VOC (lbs/gal) 4.2 **EPA VOC (grams/liter)** 501.7 EPA VOC (lb/gal solids) 19

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong acids. Strong oxidizing agents. Chlorinated compounds.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m ³ (Rat) 8 h
Solvent Naphtha, Medium Aliphatic 64742-88-7	> 5000 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h
Butane 106-97-8	-	-	= 658 g/m³ (Rat) 4 h
Ethylene Glycol Butyl Ether 111-76-2	= 470 mg/kg(Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-

Ethyl Benzene	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
100-41-4			

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SensitizationNo information available.Germ cell mutagenicityNo information available.CarcinogenicityNo information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethylene Glycol Butyl Ether 111-76-2	A3	Group 3	-	-
Titanium dioxide 13463-67-7	-	Group 2B	-	X
Ethyl Benzene 100-41-4	A3	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not classifiable as a human carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
No information available.
No information available.

Chronic toxicity Ethylbenzene has been classified by the International Agency for Research on Cancer

(IARC) as possibly carcinogenic to humans (Group 2B). Prolonged or repeated

overexposure to ethylbenzene may result in adverse effects to the kidneys, liver, respiratory system, thyroid, testicles, and pituitary glands. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver

effects.

Target Organ Effects blood, Central nervous system, Eyes, Hematopoietic System, kidney, liver, Respiratory

system, Skin.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document $\,$ mg/kg $\,$ mg/l $\,$

12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a marine pollutant according to DOT.

Ecotoxicity

43.82% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Acetone	-	4.74 - 6.33: 96 h Oncorhynchus	10294 - 17704: 48 h Daphnia
67-64-1		mykiss mL/L LC50 6210 - 8120: 96	magna mg/L EC50 Static 12600 -
		h Pimephales promelas mg/L LC50	12700: 48 h Daphnia magna mg/L
		static 8300: 96 h Lepomis	EC50
		macrochirus mg/L LC50	
Solvent Naphtha, Medium Aliphatic	450: 96 h Pseudokirchneriella	800: 96 h Pimephales promelas	100: 48 h Daphnia magna mg/L
64742-88-7	subcapitata mg/L EC50	mg/L LC50 static	EC50
Ethylene Glycol Butyl Ether	-	1490: 96 h Lepomis macrochirus	1000: 48 h Daphnia magna mg/L
111-76-2		mg/L LC50 static 2950: 96 h	EC50 1698 - 1940: 24 h Daphnia
		Lepomis macrochirus mg/L LC50	magna mg/L EC50

Ethyl Benzene	4.6: 72 h Pseudokirchneriella	11.0 - 18.0: 96 h Oncorhynchus	1.8 - 2.4: 48 h Daphnia magna mg/L
100-41-4	subcapitata mg/L EC50 438: 96 h	mykiss mg/L LC50 static 4.2: 96 h	EC50
	Pseudokirchneriella subcapitata	Oncorhynchus mykiss mg/L LC50	
	mg/L EC50 2.6 - 11.3: 72 h	semi-static 7.55 - 11: 96 h	
	Pseudokirchneriella subcapitata	Pimephales promelas mg/L LC50	
	mg/L EC50 static 1.7 - 7.6: 96 h	flow-through 32: 96 h Lepomis	
	Pseudokirchneriella subcapitata	macrochirus mg/L LC50 static 9.1 -	
	mg/L EC50 static	15.6: 96 h Pimephales promelas	
	_	mg/L LC50 static 9.6: 96 h Poecilia	
		reticulata mg/L LC50 static	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Acetone 67-64-1	-0.24
Propane 74-98-6	2.3
Butane 106-97-8	2.89
Ethylene Glycol Butyl Ether 111-76-2	0.81
Ethyl Benzene 100-41-4	3.118

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number U002 U239

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Acetone 67-64-1	-	Included in waste stream: F039	-	U002
Ethyl Benzene 100-41-4	-	Included in waste stream: F039	-	-

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Acetone 67-64-1	Ignitable
Ethyl Benzene	Toxic
100-41-4	Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no. UN1950
Proper shipping name Aerosols
Hazard Class 2.1

Marine pollutant This product contains a chemical which is listed as a marine pollutant according to DOT.

Description UN1950, Aerosols, 2.1

Emergency Response Guide 126

Number

TDG

UN/ID no. UN1950 Proper shipping name Aerosols **Hazard Class**

Description UN1950, Aerosols, 2.1

MEX

UN/ID no. UN1950 Proper shipping name Aerosols

Hazard Class

UN1950, Aerosols, 2 Description

ICAO (air)

UN/ID no. UN1950 Aerosols Proper shipping name **Hazard Class** 2.1 **Special Provisions** A145, A167

Description UN1950, Aerosols, 2.1

IATA

UN/ID no. UN1950

Aerosols, flammable Proper shipping name

Hazard Class 2.1 **ERG Code** 10L

Special Provisions A145, A167, A802

UN1950, Aerosols, flammable, 2.1 Description

IMDG

UN/ID no. UN1950 Proper shipping name Aerosols **Hazard Class** EmS-No. F-D, S-U

Special Provisions 63,190, 277, 327, 344, 959 Description UN1950, Aerosols, 2

RID

UN/ID no. UN1950 Proper shipping name Aerosols **Hazard Class** 2.1 Classification code 5F

Description UN1950, Aerosols, 2.1

ADR

UN/ID no. UN1950 Proper shipping name Aerosols Hazard Class 2.1 Classification code 5F **Tunnel restriction code** (D)

Special Provisions 190, 327, 344, 625

Description UN1950, Aerosols, 2.1, (D)

Labels 2.1

ADN

Proper shipping name Aerosols **Hazard Class** 2.1 Classification code

190, 327, 344, 625 **Special Provisions**

Description UN1950, Aerosols, 2.1

Hazard label(s) 2.1 Limited quantity (LQ) 1 L

Ventilation VE01, VE04

15. REGULATORY INFORMATION

International Inventories

Complies **TSCA DSL/NDSL** Complies * **EINECS/ELINCS** Does not comply * Does not comply * **ENCS IECSC** Complies * Does not comply * **KECL PICCS** Does not comply * **AICS** Does not comply *

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %	
Ethylene Glycol Butyl Ether - 111-76-2	1.0	
Ethyl Benzene - 100-41-4	0.1	

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ethyl Benzene 100-41-4	1000 lb	X	X	Х

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone	5000 lb	-	RQ 5000 lb final RQ
67-64-1			RQ 2270 kg final RQ
Ethyl Benzene 100-41-4	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

^{*} This product contains an unknown chemical, therefore, this product's compliance to the inventory list is NOT DETERMINED

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65	
Titanium dioxide - 13463-67-7	Carcinogen	
Ethyl Benzene - 100-41-4	Carcinogen	
Crystalline Silica - 14808-60-7	Carcinogen	

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Acetone 67-64-1	Х	X	X
Solvent Naphtha, Medium Aliphatic 64742-88-7	Х	-	-
Propane 74-98-6	Х	X	X
Butane 106-97-8	Х	X	X
Ethylene Glycol Butyl Ether 111-76-2	Х	X	X
Xylene 1330-20-7	Х	X	X
Propylene Glycol Methyl Ether 107-98-2	Х	X	X
Ethyl Benzene 100-41-4	Х	X	X
Crystalline Silica 14808-60-7	Х	Х	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Hazardous air pollutants (HAPS) content

This product contains no reportable Hazardous Air Pollutants

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 2 Flammability 4 Instability 0 Physical and Chemical Properties *

Health hazards 2 * Flammability 4 Physical hazards 0 Personal protection X

Chronic Hazard Star Legend *= Chronic Health Hazard

Revision Date 19-Jun-2015

Revision Note

No information available

Disclaimer

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. Shipping information may vary based upon container size and shipping destination. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. The manufacturer assumes no responsibility for injury to the recipient or third persons, or for any damages to any property resulting from misuse of the product.

End of Safety Data Sheet