SAFETY DATA SHEET

Revision Date 17-Jun-2015 Version 1

1. IDENTIFICATION

Product identifier

Product Name NH YELLOW LF

Other means of identification

Product Code TP440QT

SKU(s) TP440GAL, TP440QT

Recommended use of the chemical and restrictions on use
Recommended Use
No information available.
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)

Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Emergency Overview

Danger

Hazard statements

May cause an allergic skin reaction

May cause genetic defects

Suspected of causing cancer

Causes damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Flammable liquid and vapor



Appearance No information available

Physical state liquid

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

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

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

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Use explosion-proof electrical/ ventilating/ lighting/ equipment

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

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

Do NOT induce vomiting

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

- Causes mild skin irritation
- Harmful to aquatic life with long lasting effects
- · Harmful to aquatic life

Unknown acute toxicity

7.56% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Solvent Naphtha, Medium Aliphatic	64742-88-7	15 - 40	*
Titanium dioxide	13463-67-7	3 - 7	*
Stoddard Solvent	8052-41-3	1 - 5	*
Calcium carbonate	1317-65-3	1 - 5	*
Xylene	1330-20-7	1 - 5	*
Ethyl Benzene	100-41-4	0.1 - 1	*

Methyl Ethyl Ketoxime	96-29-7	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

General advice If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do

not get in eyes, on skin, or on clothing.

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. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes, lifting

lower and upper eyelids. Consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Call a physician immediately.

Inhalation Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration.

Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a

physician immediately.

Ingestion Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a

physician. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious

person. Get medical attention.

Self-protection of the first aiderUse 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

Flammable.

Explosion data

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

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. 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.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover

powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to

properly labeled containers. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray.

Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of

children. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights,

electric motors and static electricity).

Incompatible materials Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Titanium dioxide	TWA: 10 mg/m ³	TWA: 15 mg/m³ total dust	IDLH: 5000 mg/m ³
13463-67-7		(vacated) TWA: 10 mg/m³ total dust	
Stoddard Solvent	TWA: 100 ppm	TWA: 500 ppm	IDLH: 20000 mg/m ³
8052-41-3		TWA: 2900 mg/m ³	Ceiling: 1800 mg/m ³ 15 min
		(vacated) TWA: 100 ppm	TWA: 350 mg/m ³
		(vacated) TWA: 525 mg/m ³	
Calcium carbonate	-	TWA: 15 mg/m³ total dust	TWA: 10 mg/m ³ total dust
1317-65-3		TWA: 5 mg/m³ respirable fraction	TWA: 5 mg/m³ respirable dust
		(vacated) TWA: 15 mg/m³ total dust	
		(vacated) TWA: 5 mg/m³ respirable	
		fraction	
Xylene	STEL: 150 ppm	TWA: 100 ppm	-
1330-20-7	TWA: 100 ppm	TWA: 435 mg/m ³	
		(vacated) TWA: 100 ppm	
		(vacated) TWA: 435 mg/m ³	
		(vacated) STEL: 150 ppm	
		(vacated) STEL: 655 mg/m ³	
Ethyl Benzene	TWA: 20 ppm	TWA: 100 ppm	IDLH: 800 ppm
100-41-4		TWA: 435 mg/m ³	TWA: 100 ppm
		(vacated) TWA: 100 ppm	TWA: 435 mg/m ³
		(vacated) TWA: 435 mg/m ³	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.

Skin and body protection No 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

Remarks • Method

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid

AppearanceNo information availableOdorNo information availableColorNo information availableOdor thresholdNo information available

<u>Property</u> <u>Values</u>

PH
No information available
>= 117 °C / 243 °F
139 °C / 102 °F
Evaporation rate
No information available
No information available
No information available

Flammability Limit in Air

Upper flammability limit:No information availableLower flammability limit:No information availableVapor pressureNo information availableVapor densityNo information available

Specific Gravity 1.00

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 No information available **Explosive properties** No information available **Oxidizing properties**

Other Information

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

Density 8.30 lbs/gal

Bulk density No information available

Percent solids by weight
Percent volatile by weight
Percent solids by volume
Actual VOC (lbs/gal)
Actual VOC (grams/liter)

EPA VOC (lbs/gal)
3.8

EPA VOC (grams/liter)
451.3

EPA VOC (lb/gal solids)

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

8.9

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

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
Solvent Naphtha, Medium Aliphatic 64742-88-7	> 5000 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	> 5.28 mg/L (Rat)4 h
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Xylene 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h
Ethyl Benzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Methyl Ethyl Ketoxime 96-29-7	= 930 mg/kg (Rat)	= 0.2 mg/kg(Rabbit)	= 20 mg/L (Rat)4 h

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
Titanium dioxide 13463-67-7	-	Group 2B	-	X
Xylene 1330-20-7	-	Group 3	-	-

Ethyl Benzene	I A3	Group 2B	-	l X I
1 ,	7.0	0.00p 2B		,
100-41-4				

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.

Target Organ Effects Central Aspiration hazard No information

Central nervous system, Eyes, kidney, lungs, Respiratory system, Skin. 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

Harmful to aquatic life with long lasting effects

58.39% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
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
Xylene	-	13.4: 96 h Pimephales promelas	3.82: 48 h water flea mg/L EC50
1330-20-7		mg/L LC50 flow-through 2.661 -	0.6: 48 h Gammarus lacustris mg/L
		4.093: 96 h Oncorhynchus mykiss	LC50
		mg/L LC50 static 13.5 - 17.3: 96 h	
		Oncorhynchus mykiss mg/L LC50	
		13.1 - 16.5: 96 h Lepomis	
		macrochirus mg/L LC50	
		flow-through 19: 96 h Lepomis	
		macrochirus mg/L LC50 7.711 -	
		9.591: 96 h Lepomis macrochirus	
		mg/L LC50 static 23.53 - 29.97: 96	
		h Pimephales promelas mg/L LC50	
		static 780: 96 h Cyprinus carpio	
		mg/L LC50 semi-static 780: 96 h	
		Cyprinus carpio mg/L LC50 30.26 -	
		40.75: 96 h Poecilia reticulata mg/L	
		LC50 static	
Ethyl Benzene	4.6: 72 h Pseudokirchneriella		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	
Methyl Ethyl Ketoxime	83: 72 h Desmodesmus subspicatus		750: 48 h Daphnia magna mg/L
96-29-7	mg/L EC50	promelas mg/L LC50 flow-through	EC50
		760: 96 h Poecilia reticulata mg/L	
		LC50 static 320 - 1000: 96 h	
		Leuciscus idus mg/L LC50 static	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Xylene 1330-20-7	2.77 - 3.15
Ethyl Benzene 100-41-4	3.118
Methyl Ethyl Ketoxime 96-29-7	0.65

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 D001 U239

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Xylene 1330-20-7	-	Included in waste stream: F039	-	U239
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
Xylene	Toxic
1330-20-7	Ignitable
Ethyl Benzene	Toxic
100-41-4	Ignitable

14. TRANSPORT INFORMATION

DOT Not regulated

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

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies *
EINECS/ELINCS Does not comply *

TP440QT NH YELLOW LF

ENCS Does not comply *
IECSC Complies *
KECL Complies *
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 %
Xylene - 1330-20-7	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
Xylene 1330-20-7	100 lb	-	-	Х
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)
Xylene	100 lb	-	RQ 100 lb final RQ
1330-20-7			RQ 45.4 kg final RQ
Ethyl Benzene	1000 lb	-	RQ 1000 lb final RQ
100-41-4			RQ 454 kg final RQ

US State Regulations

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	

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

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Solvent Naphtha, Medium Aliphatic 64742-88-7	X	-	-
Titanium dioxide 13463-67-7	X	X	X
Stoddard Solvent 8052-41-3	X	X	X
Calcium carbonate 1317-65-3	X	X	X
Xylene 1330-20-7	X	X	X
Ethyl Benzene 100-41-4	X	X	X
Manganese Dioxide 1313-13-9	Х	-	Х
Aluminum oxide 1344-28-1	Х	Х	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Hazardous air pollutants (HAPS) content

LIST OF HAZARDOUS AIR POLLUTANTS SUBJECT TO THE PROVISIONS OF THE CLEAN AIR ACT, TITLE I SECTION 112 'National Emission Standards for Hazardous Air Pollutants':

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

NFPA Health hazards 2 Flammability 2 Instability 0 Physical and Chemical

Properties -

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

Chronic Hazard Star Legend *= Chronic Health Hazard

Revision Date 17-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