SAFETY DATA SHEET

TOXIMUL® 3473F

Version	Revision Date:	Date of last issue: 06/13/2024
1.4	07/01/2025	Date of first issue: 12/23/2023

SECTION 1. IDENTIFICATION

Product name : TOXIMUL® 3473F

Product code : 1051734

Manufacturer or supplier's details

Company name of supplier : STEPAN US

Address : 1101 Skokie Blvd, Suite 500
Northbrook IL 60062

Telephone : (847) 446-7500

Emergency telephone	Medical	1-800-228-5635 (Available 24 hours a day. SDS/Product information may not be available for the emergency service.)
	Chemtrec	1-800-424-9300
	Chemtrec Int'l	1-703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Surfactant

Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 4

Skin irritation : Category 2

Serious eye damage : Category 1

Carcinogenicity : Category 2

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

Short-term (acute) aquatic hazard : Category 2

Long-term (chronic) aquatic hazard : Category 3

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

H227 Combustible liquid.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P321 Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Chemical name	CAS-No.	Concentration (% w/w)
Anionic/nonionic blend	Proprietary	>= 70 - <= 80
Solvent naphtha (petroleum), heavy arom.	64742-94-5	>= 15 - <= 25
hexan-1-ol	111-27-3	>= 1 - < 3
naphthalene	91-20-3	>= 1 - < 3
propane-1,2-diol	57-55-6	>= 1 - < 3

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

SECTION 4. FIRST AID MEASURES

General advice : Immediate medical attention is required.
Show this material safety data sheet to the doctor in attendance.

If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.

In case of skin contact : Remove contaminated clothing and shoes.
Wash off with soap and water.
Get medical attention if irritation develops and persists.
Wash contaminated clothing before reuse.

In case of 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.
Continue rinsing.
Get medical attention immediately.

If swallowed : Rinse mouth.
Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed : Causes skin irritation.
Causes serious eye damage.
May cause drowsiness or dizziness.
Suspected of causing cancer.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide, dry powder, foam.
Fog

Unsuitable extinguishing media	:	Water spray jet
Specific hazards during fire fighting	:	May form explosive mixtures in air.
Further information	:	In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Keep people away from and upwind of spill/leak. Use clean non-sparking tools to collect absorbed material. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Evacuate personnel to safe areas. Use personal protective equipment.
Environmental precautions	:	Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Non-sparking tools should be used. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Clean thoroughly. After cleaning, flush away traces with water. Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	Ensure that eyewash stations and safety showers are close to the workstation location.
Advice on protection against fire and explosion	:	Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Vapors may form explosive mixtures with air.

Keep away from open flames, hot surfaces and sources of ignition.
Keep away from direct sunlight.
No sparking tools should be used.
No smoking.
Normal measures for preventive fire protection.

Advice on safe handling : Wear personal protective equipment.
For personal protection see section 8.
Provide sufficient air exchange and/or exhaust in work rooms. As a rule, at least 10 air changes per hour are recommended at the workplace.
Handle and open container with care.
Keep container closed when not in use.
Do not get in eyes or mouth or on skin.
Do not swallow.
Do not breathe dust, fume, gas, mist, vapors or spray.
Avoid exposure - obtain special instructions before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Use explosion-proof electrical, ventilating and lighting equipment.
Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.
Do not use sparking tools.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.

Conditions for safe storage : Keep in properly labeled containers.
Store in original container.
Keep tightly closed.
Store locked up.
Keep cool. Protect from sunlight.
Keep away from sources of ignition - No smoking.
Keep in an area equipped with sprinklers.
Take measures to prevent the build up of electrostatic charge.

Materials to avoid : Store away from incompatible materials (see Section 10 of the SDS).

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
hexan-1-ol	111-27-3	TWA	40 ppm	US WEEL
naphthalene	91-20-3	TWA	10 ppm	ACGIH
		TWA	10 ppm	NIOSH REL

			50 mg/m3	
		ST	15 ppm 75 mg/m3	NIOSH REL
		TWA	10 ppm 50 mg/m3	OSHA Z-1
		STEL	15 ppm 75 mg/m3	OSHA P0
		TWA	10 ppm 50 mg/m3	OSHA P0

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks : Protective gloves The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear safety glasses with side shields or goggles.
Face-shield

Skin and body protection : Lightweight protective clothing
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Hygiene measures : Do not taste or swallow.
General industrial hygiene practice.
Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color	:	amber
pH	:	5 - 7 Concentration: 5 % (50/50 IPA/water)
Pour point	:	34 °F / 1 °C
Boiling point/boiling range	:	> 201.00 °F / > 93.89 °C
Flash point	:	157 °F / 69 °C Method: Setaflash
Vapor pressure	:	0.76 hPa
Relative density	:	1.02 (77 °F / 25 °C)
Density	:	8.5 lb/gal (77 °F / 25 °C)
Solubility(ies) Water solubility	: :	 dispersible
Autoignition temperature	:	676.6 °F / 358.1 °C
Viscosity Viscosity, dynamic	: :	 312 mPa.s (77 °F / 25 °C)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	Incompatible materials Temperatures greater than recommended storage temperature. Heat, flames and sparks.
Incompatible materials	:	Strong oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Based on available data, the classification criteria are not met.

Product:

Acute oral toxicity	:	LD50: > 5,000 mg/kg Method: Acute toxicity estimate Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	Method: Acute toxicity estimate Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50: > 5,000 mg/kg Method: Acute toxicity estimate Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Causes skin irritation.

Product:

Result	:	Skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Result	:	Corrosive

Respiratory or skin sensitization

Skin sensitization

Based on available data, the classification criteria are not met.

Respiratory sensitization

Based on available data, the classification criteria are not met.

Product:

Result	:	Not sensitising

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Product:

Germ cell mutagenicity - Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Suspected of causing cancer.

Product:

Carcinogenicity - Assessment	:	Suspected human carcinogens

IARC	Group 2B: Possibly carcinogenic to humans	
	naphthalene	91-20-3
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
NTP	Reasonably anticipated to be a human carcinogen	
	naphthalene	91-20-3

Reproductive toxicity

Not classified due to lack of data.

Product:

Reproductive toxicity - Assessment	:	No toxicity to reproduction

STOT-single exposure

May cause drowsiness or dizziness.

Product:

Assessment	:	The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Product:

Assessment	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Remarks	:	No data available

Aspiration toxicity

Based on available data, the classification criteria are not met.

Product:

No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of contents/ container to an approved waste disposal plant.

The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	NA 1993
Proper shipping name	:	Combustible liquid, n.o.s. (Aromatic Naphtha, Hexanol)
Class	:	CBL
Packing group	:	III
Labels	:	NONE
ERG Code	:	128
Marine pollutant	:	yes(Alkylbenzenesulfonates)

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
naphthalene	91-20-3	100	4429

SARA 304 Extremely Hazardous Substances Reportable Quantity
Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Carcinogenicity
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

naphthalene	91-20-3	>= 1 - < 5 %

Clean Air Act
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

naphthalene	91-20-3	>= 1 - < 5 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

naphthalene	91-20-3	>= 1 - < 5 %
benzene	71-43-2	>= 0 - < 0.1 %
acetaldehyde	75-07-0	>= 0 - < 0.1 %
methyloxirane	75-56-9	>= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

naphthalene	91-20-3	>= 1 - < 5 %
benzene	71-43-2	>= 0 - < 0.1 %
acetaldehyde	75-07-0	>= 0 - < 0.1 %
methyloxirane	75-56-9	>= 0 - < 0.1 %

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

naphthalene	91-20-3	>= 1 - < 5 %

This product contains the following priority pollutants related to the U.S. Clean Water Act:

naphthalene	91-20-3	>= 1 - < 5 %

California Prop. 65

WARNING: This product can expose you to chemicals including naphthalene, 1,4-dioxane, ethylene oxide, acetaldehyde, methyloxirane, which is/are known to the State of California to cause cancer, and
ethylene oxide, ethane-1,2-diol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

naphthalene	91-20-3

California Permissible Exposure Limits for Chemical Contaminants

naphthalene	91-20-3

The ingredients of this product are reported in the following inventories:

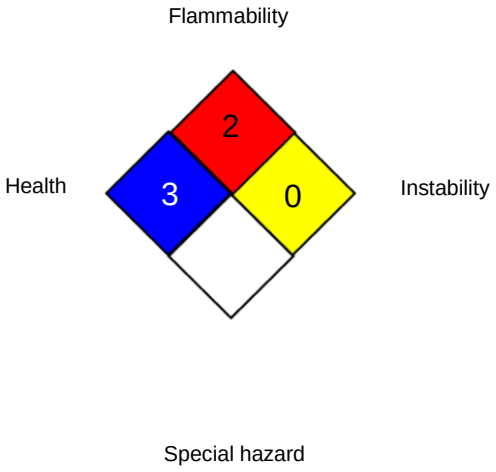
TSCA	:	On the inventory, or in compliance with the inventory
AIIC	:	On the inventory, or in compliance with the inventory
DSL	:	On the inventory, or in compliance with the inventory
IECSC	:	All components are listed on the inventory, regulatory obligations/restrictions apply
ENCS	:	On the inventory, or in compliance with the inventory
ISHL	:	Not in compliance with the inventory
NZIoC	:	On the inventory, or in compliance with the inventory

PICCS	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory

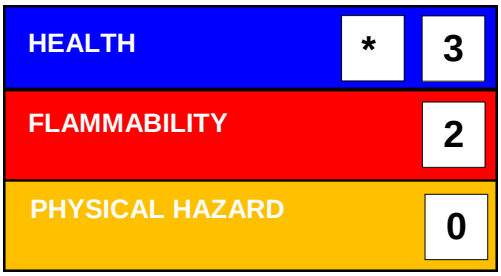
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with

x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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Revision Date : 07/01/2025

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