This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200)



Revision date 12/24/2024 Revision Number 2

1. Identification

Product identifier

Product Name MicroCare 71IPA Engineered Fluid

Other means of identification

Safety data sheet number BULK-71IPAEF

Product Code(s) 71IPAEFL, 71IPAGG, 71IPAEFD

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended useCleaning agent Restricted to professional users

Restrictions on use Consumer use

Details of the supplier of the safety data sheet

Manufacturer Address

MICROCARE LLC 595 John Downey Drive New Britain, CT 06051 United States of America

CAGE: OATV9

Tel: + 1 800 638 0125, +1 860-827-0626

techsupport@microcare.com

E-mail techsupport@microcare.com

Emergency telephone number

Emergency Telephone INFOTRAC 1-800-535-5053 (U.S.A and CANADA)

1-352-323-3500 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

Hazard statements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards classified under paragraph (d)(1)(i)(B) of 1910.1200

No information available.

Other information

May be harmful if swallowed. May be harmful in contact with skin.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Trade secret
Methyl Nonafluoroisobutyl Ether	163702-08-7	50 - <100%	*
PROPAN-2-OL	67-63-0	2.5 - <5%	*

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

4. First-aid measures

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physiciansTreat symptomatically.

5. Fire-fighting measures

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing mediaDo not scatter spilled material with high pressure water streams.

71IPAEFL, 71IPAGG, 71IPAEFP, 71IPAEFD - MicroCare 71IPA Engineered Fluid

Specific hazards arising from the

chemical

No information available.

Hazardous combustion products

Carbon monoxide. Carbon dioxide (CO2). Hydrogen fluoride.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Revision date 12/24/2024

Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

None.

Personal precautions Ensure adequate ventilation.

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 Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	Supplier OEL
Methyl Nonafluoroisobutyl Ether	TWA: 750ppm (AIHA)
163702-08-7	

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
PROPAN-2-OL	TWA: 200 ppm	TWA: 400 ppm	IDLH: 2000 ppm
67-63-0	STEL: 400 ppm	TWA: 980 mg/m ³	TWA: 400 ppm
		(vacated) TWA: 400 ppm	TWA: 980 mg/m ³
		(vacated) TWA: 980 mg/m ³	STEL: 500 ppm
		(vacated) STEL: 500 ppm	STEL: 1225 mg/m ³
		(vacated) STEL: 1225 mg/m ³	_

Biological occupational exposure limits

Chemical name	ACGIH
PROPAN-2-OL	40 mg/L - urine (Acetone) - end of shift at end of workweek
67-63-0	·

Appropriate engineering controls

Showers **Engineering controls**

> Evewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

No special protective equipment required. Eye/face protection

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

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

Appearance Clear liquid Physical state Liquid Color colorless Slight, Alcoholic Odor (includes odor threshold)

Property Values Remarks • Method

Melting point / freezing point No data available None known Boiling point (or initial boiling point or 55 °C / 131.0 °F None known

boiling range) **Flammability** Not flammable No data available

Flammability Limit in Air None known

Upper flammability or explosive limits 16.7 Lower flammability or explosive limits

No data available Does not flash, Tag closed cup (ASTM Flash point

D 56)

Autoignition temperature No data available None known **Decomposition temperature** No data available None known SADT (°C) No data available None known No data available pН None known No data available pH (as aqueous solution) None known Kinematic viscosity 0.41 cSt at 25°C None known Dynamic viscosity No data available None known Solubility No data available None known Water solubility slightly soluble None known Partition coefficient n-octanol/water (log No data available None known

Vapor pressure (includes evaporation rate)207 mmHg at 25°C None known Density and/or relative density No data available None known

Bulk density No data available

Liquid Density 1.48

Relative vapor density No data available None known

Particle characteristics None known

Particle Size No data available Particle Size Distribution No data available

Other information

Information with regard to physical hazard classes

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoidNone known based on information supplied.

Incompatible materialsNone known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity No information available.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

 ATEmix (oral)
 4,660.70 mg/kg

 ATEmix (dermal)
 4,059.00 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

 ATEmix (inhalation-vapor)
 30.1002 mg/l

 ATEmix (inhalation-dust/mist)
 99,999.00 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	
Methyl Nonafluoroisobutyl Ether	> 5000 mg/kg (Rat)	-	-	
163702-08-7				
PROPAN-2-OL	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	> 10000 ppm (Rat) 6 h	
67-63-0			, ,	

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

Skin corrosion/irritationNo information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
PROPAN-2-OL	-	Group 3	-	X
67-63-0				

Legend

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Occupational Safety and Health Administration of the US Department of Labor

X - Present

Reproductive toxicity No information available.

STOT - single exposureNo information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
PROPAN-2-OL	EC50: >1000mg/L (96h,	LC50: =9640mg/L (96h,	-	EC50: =13299mg/L (48h,
67-63-0	Desmodesmus	Pimephales promelas)		Daphnia magna)
	subspicatus)	LC50: =11130mg/L (96h,		_
	EC50: >1000mg/L (72h,	Pimephales promelas)		
	Desmodesmus	LC50: >1400000µg/L		
	subspicatus)	(96h, Lepomis		
		macrochirus)		

Persistence and degradability No information available.

Bioaccumulation

Component Information

compenent information		
Chemical name	Partition coefficient	
PROPAN-2-OL	0.05	
67-63-0		

Other adverse effects No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as

a hazardous waste.

14. Transport information

DOT

UN number or ID number
Proper shipping name
Transport hazard class(es)

Not regulated
Not applicable
Not applicable

<u>TDG</u>

UN number or ID number
UN proper shipping name
Transport hazard class(es)

Not regulated
Not applicable
Not applicable

MEX

UN number or ID number
UN proper shipping name
Not regulated
Not applicable

Transport hazard class(es) No information available

ICAO (air)

UN number or ID number Not regulated UN proper shipping name Not applicable

Transport hazard class(es) No information available

IATA

UN number or ID number
UN proper shipping name
Transport hazard class(es)

Not regulated
Not applicable
Not applicable

IMDG

UN number or ID number
UN proper shipping name
Transport hazard class(es)

Not regulated
Not applicable

15. Regulatory information

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA

TSCA: The ingredients of this product are listed on the active TSCA Inventory.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Methyl Nonafluoroisobutyl Ether	163702-08-7	Present	Active
PROPAN-2-OL	67-63-0	Present	Active

TSCA 12(b)

Chemical name	U.S TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification
Methyl Nonafluoroisobutyl Ether	Listed

DSL/NDSL Contact supplier for inventory compliance status. Contact supplier for inventory compliance status. **EINECS/ELINCS** Contact supplier for inventory compliance status. **ENCS IECSC** Contact supplier for inventory compliance status. **KECL** Contact supplier for inventory compliance status. Contact supplier for inventory compliance status. **PICCS** Contact supplier for inventory compliance status. AIIC **NZIoC** Contact supplier for inventory compliance status.

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 Chemicals Inventory

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

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 %
PROPAN-2-OL - 67-63-0	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as 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
Methyl Nonafluoroisobutyl	-	X	-	-
Ether				
163702-08-7				

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level

pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Methyl Nonafluoroisobutyl Ether	-	-	X
163702-08-7			
PROPAN-2-OL	X	X	X
67-63-0			

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA_	Health hazards 0	Flammability 0	Instability 0	Special hazards -
HMIS_	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection -

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

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
	(Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	Environmental Protection Agency
GHS	Globally Harmonized System
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
ICAO	International Civil Aviation Organization
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)

SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
NIOSH National Institute for Occupational Safety and Health n.o.s. Not Otherwise Specified NOAEC No Observed Adverse Effect Concentration NOAEL No Observed Adverse Effect Level NoELR No Observed Adverse Effect Level NoELR No Observable Effect Loading Rate NTP National Toxicology Program (United States) NZIOC New Zealand Inventory of Chemicals OECD Organization for Economic Cooperation and Development OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substances PHT Persistent, Mobile and Toxic PPE Personal protective equipment OSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SARA Suructure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure TCSI Taiwan Chemical Substances North Act (United States) Transport of Dangerous Goods (Canada) Time-Weighted Average UN United Nations VOC Volatile organic compounds VeyB Very Persistent and Very Bioaccumulative VeyM Very Persistent and Very Bioaccumulative VeyM Very Persistent and Very Mobile		International Convention for the Prevention of Pollution from Ships
NOAEC No Observed Adverse Effect Concentration NOAEL No Observed Adverse Effect Level NOELR NOELR NO Observable Effect Loading Rate NTP National Toxicology Program (United States) NZIOC New Zealand Inventory of Chemicals OECD Organization for Economic Cooperation and Development OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STEL Short Term Exposure Limit TSTOT SE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VevB Very Persistent and Very Bioaccumulative VevM Very Persistent and Very Bioaccumulative VevM Very Persistent and Very Mobile Sen+ Senitzer	NFPA	National Fire Protection Association
NOAEC No Observed Adverse Effect Concentration NOAEL No Observed Adverse Effect Level NoCELR No Observable Effect Loading Rate NTP National Toxicology Program (United States) NZIOC New Zealand Inventory of Chemicals OECD Organization for Economic Cooperation and Development OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) Track Substances Control Act (United States) TWA Time-Weighted Average UN United Nations Vory Very Persistent and Very Mobile Sen+ Sensitizer Ski* Skin designation	NIOSH	National Institute for Occupational Safety and Health
NOAEL No Observable Effect Level NOELR No Observable Effect Loading Rate NTP National Toxicology Program (United States) NZIOC New Zealand Inventory of Chemicals OECD Organization for Economic Cooperation and Development OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PPT Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Safety Data Sheet Structure-activity relationship SARA Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Ski* Skin designation		
NOELR NOELR NTP National Toxicology Program (United States) NZIOC New Zealand Inventory of Chemicals OECD Organization for Economic Cooperation and Development OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SARR Structure-activity relationship Safex SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation	NOAEC	No Observed Adverse Effect Concentration
NTP National Toxicology Program (United States) NZIOC New Zealand Inventory of Chemicals OECD OFCD Organization for Economic Cooperation and Development OEL Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PHICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sensitizer Ski* Skin designation	NOAEL	No Observed Adverse Effect Level
NZIOC New Zealand Inventory of Chemicals OECD Organization for Economic Cooperation and Development OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT) Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sen+ Skin designation	NOELR	No Observable Effect Loading Rate
OECD Organization for Economic Cooperation and Development OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Su	NTP	National Toxicology Program (United States)
OEL Occupational exposure limits OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations		
OSHA Occupational Safety and Health Administration of the US Department of Labor PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SARA Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TTWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Skir Skin designation		
PBT Persistent, Bioaccumulative and Toxic substance PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Skir Skin designation		
PICCS Philippines Inventory of Chemicals and Chemical Substances PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Skir Skin designation		
PMT Persistent, Mobile and Toxic PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		Persistent, Bioaccumulative and Toxic substance
PPE Personal protective equipment QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
QSAR Quantitative Structure Activity Relationship RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Ski* Skin designation		
RID Agreement concerning the International Carriage of Dangerous Goods by Rail (Euro SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Ski* Skin designation		Personal protective equipment
SADT Self-Accelerating Decomposition Temperature SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
SAR Structure-activity relationship SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SARA Superfund Amendments and Reauthorization Act SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
SDS Safety Data Sheet SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		Structure-activity relationship
SL Surface Limit STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		Superfund Amendments and Reauthorization Act
STEL Short Term Exposure Limit STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPvB Very Persistent and Very Bioaccumulative VPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation	SDS	Safety Data Sheet
STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
STOT SE Specific target organ toxicity - Single exposure TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation	STEL	Short Term Exposure Limit
TCSI Taiwan Chemical Substance Inventory TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds vPvB Very Persistent and Very Bioaccumulative vPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
TDG Transport of Dangerous Goods (Canada) TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds VPVB Very Persistent and Very Bioaccumulative VPVM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
TSCA Toxic Substances Control Act (United States) TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds vPvB Very Persistent and Very Bioaccumulative vPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
TWA Time-Weighted Average UN United Nations VOC Volatile organic compounds vPvB Very Persistent and Very Bioaccumulative vPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
UN United Nations VOC Volatile organic compounds vPvB Very Persistent and Very Bioaccumulative vPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		Toxic Substances Control Act (United States)
VOC Volatile organic compounds vPvB Very Persistent and Very Bioaccumulative vPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		Time-Weighted Average
VPvB Very Persistent and Very Bioaccumulative vPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
vPvM Very Persistent and Very Mobile Sen+ Sensitizer Sk* Skin designation		
Sen+ Sensitizer Sk* Skin designation		
Sk* Skin designation	vPvM	
	Sk*	
** Hazard Designation	**	Hazard Designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

71IPAEFL, 71IPAGG, 71IPAEFP, 71IPAEFD - MicroCare 71IPA Engineered Fluid

Revision date 12/24/2024

Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

Revision date 12/24/2024

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.

End of Safety Data Sheet