

SAFETY DATA SHEET

(SDS)

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008, (EU) No. 2015/830

Revision Date 21-Feb-2024

WAI2 - EGHS - EUROPEAN

Revision Number 2

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Name Non-Ionic Surfactant Titrant

Product No 654205
Unique Formula Identifier (UFI) Not applicable

REACH registration number Not applicable

Pure substance/mixture Mixture

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

Recommended Use Use as laboratory reagent

Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Manufacturer, Importer, Supplier Thermo Fisher Scientific
Robert-Bosch-Str. 163505
Langenselbold, GERMANY
Tel.: +49 (6184) 90-6000

E-mail address wlp.techsupport@thermofisher.com

Made in USA

1.4. Emergency telephone number 24 Hour Emergency Phone Number
CHEMTREC®
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: 1-703-527-3887
(collect calls accepted)

SECTION 2. HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****Classification - Mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements**Signal Word**

None

Precautionary Statements**2.3. Other hazards****General Hazards**

This product does not contain any known or suspected endocrine disruptors
Toxic to terrestrial vertebrates

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No	CAS No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567	REACH Reg. No
Water	EEC No. 231-791-2	7732-18-5	90 - 100%	Not classified	No information available
Sodium Tetraphenylborate	EEC No. 205-605-5	143-66-8	0 - 10%		No information available
FD & C Yellow #5	EEC No. 217-699-5	1934-21-0	0 - 10%		No information available

Component	CAS No	Specific concentration limits (SCL's)	M-Factor	Component notes
Water	7732-18-5	-	-	-
Sodium Tetraphenylborate	143-66-8	-	-	-
FD & C Yellow #5	1934-21-0	-	-	-

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. Show this safety data sheet to the doctor in attendance.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Self-Protection of the First Aider	No special precautions required.

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

Most important symptoms and effects	None reasonably foreseeable
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4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically
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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

5.3. Advice for firefighters

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required.
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6.2. Environmental precautions

Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.
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6.3. 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 Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Reference to Other Sections

Refer to protective measures listed in Sections 7 and 8

See Section 8 for information on appropriate personal protective equipment

See Section 12 for additional Ecological Information

See Section 13 for additional waste treatment information

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Protect from direct sunlight.

7.3. Specific end use(s)

Specific Use(s)

Use as laboratory reagent

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s):

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
FD & C Yellow #5	MAC: 5 mg/m ³				

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
FD & C Yellow #5 1934-21-0 (0 - 10%)				DNEL = 52.82mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
FD & C Yellow #5 1934-21-0 (0 - 10%)				DNEL = 372.52mg/m ³

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
FD & C Yellow #5 1934-21-0 (0 - 10%)	PNEC = 0.12mg/L	PNEC = 0.46992mg/kg sediment dw	PNEC = 1.2mg/L	PNEC = 10mg/L	PNEC = 0.02353mg/kg soil dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
FD & C Yellow #5 1934-21-0 (0 - 10%)	PNEC = 0.012mg/L	PNEC = 0.046992mg/kg sediment dw			

8.2. Exposure controls**Engineering Measures** None under normal use conditions**Personal protective equipment****Eye/face Protection** Wear chemical splash goggles and face shield. If splashes are likely to occur: Goggles.**Skin and body protection** Wear protective gloves/protective clothing.**Respiratory Protection** No protective equipment is needed under normal use conditions.
Recommended Filter type: Particle filter.**Environmental exposure controls** No information available**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

Physical State Liquid
Appearance Clear
Odor None
Odor Threshold No information available
pH 9
PH Range 8.5 - 9.5

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point/freezing point	No information available	
Boiling Point/Range	100 °C / 212 °F	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	1.0	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	-	
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	
9.2. Other information		
Softening Point	No information available	
Molecular Weight	No information available	
VOC Content(%)	No information available	
Density	No Information available	
Bulk Density	No information available	

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No information available

10.2. Chemical stability

Stable under normal conditions

Explosion Data

Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None

10.3. Possibility of hazardous reactions

None under normal processing

10.4. Conditions to avoid

Extremes of temperature and direct sunlight

10.5. Incompatible materials

No information available

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

Acute Toxicity

Unknown Acute Toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	LD50 > 90 mL/kg (Rat)		
Sodium Tetraphenylborate	LD50 = 288 mg/kg (Rat)		
FD & C Yellow #5	LD50 > 2000 mg/kg (Rat)		

Skin Corrosion/Irritation No information available

Serious eye damage/eye irritation No information available

Sensitization No information available

Mutagenic Effects No information available

Carcinogenic effects No information available

Reproductive Effects No information available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

Aspiration hazard No information available

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

0.04% of the mixture consists of components(s) of unknown hazards to the aquatic environment

12.2. Persistence and degradability

12.3. Bioaccumulative potential

Component	log Pow	Bioconcentration factor (BCF)
FD & C Yellow #5	-1.572	No data available

12.4. Mobility in soil

Component	log Pow
FD & C Yellow #5 1934-21-0 (0 - 10%)	-1.572

12.5. Results of PBT and vPvB assessment

No information available

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant

This product does not contain any known or suspected substance

Ozone Depletion Potential

This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Waste from Residues/Unused Products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Improper disposal or reuse of this container may be dangerous and illegal.

SECTION 14: TRANSPORT INFORMATION**IMDG/IMO**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Marine Pollutant	Not Applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

ADR

14.1. UN number	Not Regulated
14.2. UN proper shipping name	Not Regulated
14.3. Transport hazard class(es)	Not Regulated
14.4. Packing group	Not Regulated

ICAO

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

IATA

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories**

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS), U.S.A. (TSCA).

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Sodium Tetraphenylborate	143-66-8	205-605-5	-	-	X	X	KE-31629	X	X
FD & C Yellow #5	1934-21-0	217-699-5	-	-	X	X	KE-06857	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Water	7732-18-5	X	ACTIVE	X	-	X	X	X
Sodium Tetraphenylborate	143-66-8	X	ACTIVE	X	-	X	X	X
FD & C Yellow #5	1934-21-0	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

European Union**Authorisation/Restrictions according to EU REACH**

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Sodium Tetraphenylborate	143-66-8	-	-	-
FD & C Yellow #5	1934-21-0	-	Use restricted. See item 75. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

Water endangering class = 2 (self classification)

Component	Germany - Water Classification (AwSV)
FD & C Yellow #5 1934-21-0 (0 - 10%)	WGK1

15.2. Chemical safety assessment

A Chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

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

CAS - Chemical Abstracts Service

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

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

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

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer
Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

TWA TWA (time-weighted average)

Ceiling Maximum limit value

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

STEL STEL (Short Term Exposure Limit)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Prepared By Regulatory Affairs

Prepared For Thermo Fisher Scientific Inc.

Issue Date No information available

Revision Date 21-Feb-2024

Reason for revision SDS sections updated.

Training Advice Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

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End of Safety Data Sheet