MATERIAL SAFETY DATA SHEET

1.	Identification	substance or	preparation an	d of the compa	nv

1.1 Product information

1.1.1 Commercial product name

INDOFIL 2900

1.2 Company identification

1.2.1 Manufacturer/supplier

PT LAUTAN WARNA SARI Blok Muara Ciwidey RT 01/01 Ds. Cilampeni, Kec. Katapang

Bandung 40971

Phone: 62-22-5892556-9 Fax: 62-22-5892554

2. <u>Composition/information on ingredients</u>

2.2 Chemical characterization (preparation)

2.2.1 Description Highly refined white oils, non ionic emulsifiers

2.2.2 Hazardous ingredients

Description	CAS- number	Content (%)	Hazardous warning symbol	Risks

3. Hazard identification

3.1 Special risks for human

beings and the environment

The product does not have to be identified according to EG-regulations and regulations for dangerous substances

Water endangering preparation

4. <u>First aid measures</u>

Inhalation

4.2

4.1 General recommendations Change moistened clothes

Avoid contact with the concentrated product Consult physician when not feeling well

4.3 Skin contact Cleanse immediately with water and soap if in contact

with skin

4.4	Eye contact	Rinse with water or using a eye rinsing bottle with Isogutt-solution for 15 minutes, visit the eye physician
4.5	Ingestion	Do not initiate vomiting
4.6	Recommendations for the physician	Visit physician Show the physician the safety data sheet
5.	Fire-fighting measures	
5.1	Suitable extinguishing media	All extinguishing medias Harmonize fire extinguishing measurement to environment
5.2	Unsuitable extinguishing media	Nothing
5.3	Hazardous thermal decomposition and combustion products	According to fire conditions the formation of health damaging materials cannot be excluded
5.4	Protection of fire fighters	Fire bridgade protection clothes Use a non recirculation type of breathing protective device
6.	Accidental release measures	
6.1	Personal precautions	Take care of the usual protection measures for chemicals Provide good aeration
6.2	Environmental precautions	Contamination of environment should be avoided Do not let it get into underground or piping systems Do not let it get into surface water/ground water Capture contaminated water and dispose
6.3	Measures in case of spillage	Prevent aerial expansion (e.g. by containing or oil blockings) Sample with liquid binding materials (e.g. Sand, kieselguhr) and collect in container Dispose contaminated material as waste according to point 13
6.4	Additional information	Not necessary
7.	Handling and Storage	
7.1 7.1.1	Handling Advice for safe handling	Wear recommended protective equipment Pay attention to safety rules
7.1.2	Protection against fire and explosion	Not necessary

7.2 7.2.1 7.2.2	Storage Requirements for storage rooms and containers Methods for collective storage	Requirements on the storage quality according to WGK:2 Corresponds to storage class: compare point 7.2.4
7.2.3	Additional methods for storage	Keep container tightly closed Provide good aeration
7.2.4	Storage class (VCI-draft)	Recommended storage temperature: +3°C to +35°C 10 flammable liquids
8.	Exposure controls and persona	al protection
8.1	Additional recommendations for technical equipment of plants	De-aeration and cleaning of exhaust air should be provided
8.2	Occupational exposure limit	\mathbf{s}
8.2.1	Additional advice	Not necessary The product does not contain components which working place concentration limits, need to be monitored
8.3	Personal protection	place concentration minus, need to be mointored
8.3.1	General measures	Avoid contact with eyes and skin Keep away from human food and drinks, and animal fooder Wash your hands before work breaks and when finished work Do not eat, drink, smoke during work
8.3.2	Respiratory protection	Provide good aeration
8.3.3	Hand protection	Rubber gloves Tight fitting sofety glosses
8.3.4 8.3.5	Eye protection Body protection	Tight fitting safety glasses Gum apron
9.	Physical and chemical propert	<u>ies</u>
9.1 9.1.1 9.1.2 9.1.3 9.2 9.2.1 9.2.1.1 9.2.1.2 9.2.2 9.2.3	Appearance Form Colour Odour Safety data Changes of the physical state Boiling range Melting range Flashpoint Ignition temperature	Liquid Yellow Typical > 200 °C < -10 °C > 110 °C n.bek. °C

9.2.4 9.2.5 9.2.6 9.2.7 9.2.8	Auto ignition temperature Oxidizing properties Explosive properties Lower explosion limit Upper explosion limit	No No No n.a. % n.a. %				
9.2.9	Vapour pressure	< 0,1	hPa	20	°C	
9.2.10	Density	0,9	g/cm³	20	°C	DIN 51757
9.2.11	Solubility	misc. 100	g/l	20	°C	Water
9.2.12	pH-value Percentage of the aqueous solution	10%	7 - 8	20	°C	
	of the original product at 20°C	n.g.				
9.2.13	Partition coefficient noctanol/water (Lg pOW)	n.a. n-C	octanol/Wa	ter		
9.2.14	Viscosity	~ 25	mPas	20	°C	DIN 53015
9.2.15 9.2.16	Separation by solvents Percentage of solvent	No 	%			
9.3	Additional recommendation	Not necessar	ry			
10.	Stability and reactivity					
10.1 10.2 10.3	Conditions to be avoided Substances to be avoided Hazardous decomposition p	Vaporisation Open flames Nothing kno	3	pen co	ntainei	rs
		Causes				position products
10.4	Other data	Not necessar No decompo	•			monoxide

11. **Toxicological information**

Acute toxicityMammal toxicity 11.1

11.1.1

Sort	Value	Unit	Species	Method
LD50	> 2000	mg/kg	Rat	

(oral)			
	(oral)		

11.1.2 Specific symptoms in experiments with animals

No data available

11.1.3 Primary irritation

Weak irritating effect on skin and eyes

11.1.4 Other data

Nothing

11.2 Subacute to chronic toxicity

Investigation	Result
Not done	Not known

11.3 Experiences with human beings

11.3.1	Sensitizing	
11.3.2	Skin resorption	
11.3.3	pregnancy group	
11.3.4	Most tolerable limit category	

11.4 Other data

The product is not harmful to health when handled appropriately and used as prescribed, according to our

experience and knowledge

The use of the product in industry up to now has not shown any negative physiological effects on the personal

No known sensibilizing effect

12. <u>Ecological information</u>

12.1 Information on elimination and persistence

Guideline	Method	Rate of elimination	Classification
Not checked			Easy to eliminate

12.1.1	Valuation	Elimination is produced partly by biological

decomposition, and partly by adsorption and

sedimentation processes in activated sludge flakes

12.1.2 Other data No disturbances of the degradation activity of the

activated sludge are to be expected when appropriately introduced in small concentrations in adapted biological

clarification plants

12.2 Reaction in the environment

12.2.1 Information on the substances of the product

12.2.2 Other data

No known negative behaviour

Low potential of accumulation

12.3 Ecotoxic effects

12.3.1 Aquatic toxicity

12.3.2 12.3.3 12.3.4	Additional information Reactions in clarification plants Additional information	Low aquatic toxicity Concentrations found in disturbances Nothing	n sewage do not cause
12.3.5	Inhibition of activated sludge	EC50: > 100	
12.3.6	EC in mg/l Other data	Do not let it get into sur	face water/ground water
12.4 12.4.1	Additional information COD	$n.g.$ mgO_2/g	
12.4.2	BOD5	mg . mgO_2/g	
12.4.3	AOX informations	Does not produce an inc sewage water	crease of the AOX value in the
12.4.4	Guideline 76/464 EEC	S	
		Heavy metal	Percentage of heavy metal
		Heavy metal Nothing	Percentage of heavy metal
12.4.5	Other data		Percentage of heavy metal
12.4.5 13.	Other data <u>Disposal considerations</u>	Nothing	Percentage of heavy metal
	Disposal considerations Product Recommendations for	Nothing Nothing May be deposited accor	rding to the local regulations
13. 13.1	Product Recommendations for disposal procedures Waste key number (Germany) with waste	Nothing Nothing	rding to the local regulations
13.1 13.1.1	Product Recommendations for disposal procedures Waste key number	Nothing Nothing May be deposited accor (systematic dump or but 12503 fat-, oil- and wax	rding to the local regulations
13.1 13.1.1 13.1.2 13.1.3 13.1.4	Product Recommendations for disposal procedures Waste key number (Germany) with waste designation Nature of disposal Proof	Nothing Nothing May be deposited accor (systematic dump or but 12503 fat-, oil- and wax	rding to the local regulations rning)
13.1 13.1.1 13.1.2 13.1.3	Product Recommendations for disposal procedures Waste key number (Germany) with waste designation Nature of disposal	Nothing Nothing May be deposited accor (systematic dump or but 12503 fat-, oil- and wax Plants for combustion of particularly monitored Yes	rding to the local regulations rning) s- emulsions of special waste which has to be
13.1 13.1.1 13.1.2 13.1.3 13.1.4	Product Recommendations for disposal procedures Waste key number (Germany) with waste designation Nature of disposal Proof	Nothing Nothing May be deposited accor (systematic dump or but 12503 fat-, oil- and wax Plants for combustion oparticularly monitored	rding to the local regulations rning) a- emulsions of special waste which has to be Recommended detergent

Not necessary

Value

> 10

Unit

mg/l

Sort

13.3

Other data

Fish toxicity LC50

Species
Leuciscus idus

Method OECD 203

14.	Transport information	
14.1 14.1.1 14.1.2 14.1.3 14.1.4 14.1.5 14.1.6	Land transport ADR/RID a Class Number / Letter Danger number UN-number Technical designation Further notes	and GGVS/GGVE No dangerous load for transport
110		
14.2	Inland navigation	
14.2.1	Class	
14.2.2	Number / letter	
14.2.3	Category Tachnical designation	
14.2.4	Technical designation	
14.2.5	UN-number	Not one of al
14.2.6	Further notes	Not proofed
14.3	Ship transport IMDG/GGV	/Saa
14.3.1	Class	, see
14.3.1	UN-number	
14.3.2	Packing group	
14.3.3	EMS-number	
14.3.4	MFAG	
14.3.6	Marine pollutant	 No
14.3.7	Technical designation	
14.3.7	Further notes	No dangerous load for transport
14.5.0	Turther notes	No dangerous road for transport
14.4	Air transport ICAO-TI and	I IATA-DGR
14.4.1	Class	
14.4.2	UN-number	
14.4.3	Packing group	
14.4.4	Technical designation	
14.4.5	Further notes	No dangerous load for transport
15.	Regulatory information	
15.1	Classification according to	EEC directives
15.1.1	Hazard symbol and	The product does not have to be identified according to
- · · · -	designation	EG-regulations and regulations for dangerous substances

Not applicable

15.1.2

15.1.3

Dangerous component

Risk-phrases

15.1.4 15.1.5	Safety-phrases Special identification signs of specific preparations (acc. to annex of guidelines for mixtures 89/379/EEC)	Not applicable Not applicable
15.2	National regulations (Germa	ny)
15.2.1	Advice about occupational limits	Not necessary
15.2.2	Rules for accidents	
15.2.2.1	Materials generating accidents	acc. to annex II
15.2.2.1.	Name of the chemical acc. to	Not applicable
1	annex II with successive number	
15.2.3	Classification for fire hazard	
15.2.3.1	VbF-Class	
15.2.4	Classification acc. to the techn	
15.2.4.1 15.2.4.2	TA-air section TA-air class	3.1.7 III
15.2.4.2	Classification for	
13.2.3	endangering water (WGK)	2 = hazardous to water (self-assessment)
15.2.6	Other regulations, restrictions and "Verbot" laws	Not applicable

16. Other information

16.1 Information This data sheet has to be accessible to the technical staff all the time

Abbreviations: n.a. = not applicable, n.g. = not examined, n. bek. = not known Changes to the former edition of the safety data sheet are marked with a black vertical bar on the right side of the page.

The prementioned data are based on todays knowledge and are not a 100% guarantee. Existing laws and regulations are to be considered by the consignee of our product on his own responsibility.



MATERIAL SAFETY DATA SHEET

1.	Identification	substance o	r preparation	and of the	company
1.	<u>rucuimeanon</u>	substance o	<u>i bicbaranun</u>	and of the	Company

1.1 **Product information**

1.1.1 Commercial product name

INDOFIL 2900 X

1.1.2 **CAS Number MIXTURE**

1.2 **Company identification**

Manufacturer/supplier 1.2.1 PT LAUTAN WARNA SARI

> Blok Muara Ciwidey RT 01/01 Ds. Cilampeni, Kec. Katapang

Bandung 40971

Phone: 62-22 - 5892554 & 8

2. **Composition/information on ingredients**

2.2 **Chemical characterization (preparation)**

2.2.1 Description Highly refined white oils, non ionic emulsifiers 2.2.2 Component CAS Number %volume

- Aromatic Hydrocarbon < 5 - Paraffinic Hydrocarbon >50

- White Mineral Oils 8042-47-5

7695-91-2 - Stabilizer / < 50 - Additive 128-37-0

3. Hazard identification

3.1 Special risks for human beings and the environment

The product does not have to be identified according to EG-regulations and regulations for dangerous substances Water endangering preparation



4.	First aid measures	
4.1 4.2 4.3	General recommendations Inhalation Skin contact	Change moistened clothes Avoid contact with the concentrated product Consult physician when not feeling well Cleanse immediately with water and soap if in contact with skin
4.4	Eye contact	Rinse with water or using a eye rinsing bottle with Isogutt-solution for 15 minutes, visit the eye physician
4.5	Ingestion	Do not initiate vomiting Visit physician
4.6 5.	Recommendations for the physician Fire-fighting measures	Show the physician the safety data sheet
5.1	Suitable extinguishing media	All extinguishing medias Harmonize fire extinguishing measurement to environment
5.2	Unsuitable extinguishing media	Nothing
5.3	Hazardous thermal decomposition and combustion products	According to fire conditions the formation of health damaging materials cannot be excluded
5.4	Protection of fire fighters	Fire bridgade protection clothes Use a non recirculation type of breathing protective device
6.	Accidental release measures	
6.1	Personal precautions	Take care of the usual protection measures for chemicals Provide good aeration
6.2	Environmental precautions	
6.3	Measures in case of spillage	Prevent aerial expansion (e.g. by containing or oil blockings) Sample with liquid binding materials (e.g. Sand, kieselguhr) and collect in container Dispose contaminated material as waste according to
6.4	Additional information	point 13 Not necessary



7.	Handling and Storage	
7.1 7.1.1 7.1.2	Handling Advice for safe handling Protection against fire and	Wear recommended protective equipment Pay attention to safety rules Not necessary
	explosion	
7.2	Storage	
7.2.1	Requirements for storage rooms and containers	Requirements on the storage quality according to WGK:2
7.2.2	Methods for collective storage	Corresponds to storage class: compare point 7.2.4
7.2.3	Additional methods for	Keep container tightly closed
	storage	Provide good aeration Recommended storage temperature: +3°C to +35°C
7.2.4	Storage class (VCI-draft)	10 flammable liquids
8.	Exposure controls and persona	<u>l protection</u>
8.1	Additional recommendations for technical equipment of	De-aeration and cleaning of exhaust air should be provided
8.2	plants Occupational exposure limits	s
8.2.1	Additional advice	Not necessary
		The product does not contain components which working place concentration limits, need to be monitored
8.3	Personal protection	
8.3.1	General measures	Avoid contact with eyes and skin Keep away from human food and drinks, and animal fooder
		Wash your hands before work breaks and when finished work
8.3.2	Respiratory protection	Do not eat, drink, smoke during work Provide good aeration
8.3.3	Hand protection	Rubber gloves
8.3.4	Eye protection	Tight fitting safety glasses
8.3.5	Body protection	Gum apron



P.T. LAUTAN WARNA SARI

DYESTUFF, CHEMICAL AND MODIFIED STARCH

Physical and chemical properties

9.1 9.1.1 9.1.2 9.1.3	Appearance Form Colour Odour	Liquid Yellow Typical					
9.2 9.2.1 9.2.1.1 9.2.1.2 9.2.2 9.2.3	Safety data Changes of the physical state Boiling range Melting range Flashpoint Ignition temperature	> 200 < -10 > 110 n.bek.	°C °C °C				
9.2.4 9.2.5 9.2.6 9.2.7 9.2.8	Auto ignition temperature Oxidizing properties Explosive properties Lower explosion limit Upper explosion limit	No No No n.a. n.a.	% %				
9.2.9	Vapour pressure	< 0,1		hPa	20	°C	
9.2.10	Density	0,9		g/cm³	20	°C	DIN 51757
9.2.11	Solubility	misc. 1	00	g/l	20	°C	Water
9.2.12	pH-value Percentage of the aqueous solution	10%		7 - 8	20	°C	
	of the original product at	n.g.					
9.2.13	20°C Partition coefficient n- octanol/water (Lg pOW)	n.a.	n-C	Octanol/Wa	iter		
9.2.14	Viscosity	~ 25		mPas	20	°C	DIN 53015
9.2.15 9.2.16	Separation by solvents Percentage of solvent	No 		%			
9.3	Additional recommendation	Not nec	cessa	ry			



P.T. LAUTAN WARNA SARI

DYESTUFF, CHEMICAL AND MODIFIED STARCH

10. Stability and reactivity

10.1 Conditions to be avoided

Vaporisation through open containers

Open flames

10.2 Substances to be avoided

Nothing known

10.3 Hazardous decomposition products

Causes	Decomposition products
Fire	Carbon monoxide

10.4 Other data Not necessary

No decomposition if applied properly

11. **Toxicological information**

11.1 **Acute toxicity**

11.1.1 Mammal toxicity

Sort	Value	Unit	Species	Method
LD50	> 2000	mg/kg	Rat	
(oral)				

11.1.2 Specific symptoms in experiments with animals No data available

11.1.3 Primary irritation Weak irritating effect on skin and eyes

11.1.4 Other data Nothing

11.2 **Subacute to chronic toxicity**

Investigation	Result
Not done	Not known

11.3 **Experiences with human beings**

11.3.1 Sensitizing

11.3.2 Skin resorption

11.3.3 pregnancy group

11.3.4 Most tolerable limit category

11.4 Other data The product is not harmful to health when handled

appropriately and used as prescribed, according to our

experience and knowledge

The use of the product in industry up to now has not shown any negative physiological effects on the personal

No known sensibilizing effect



P.T. LAUTAN WARNA SARI

DYESTUFF, CHEMICAL AND MODIFIED STARCH

12. **Ecological information**

12.1 Information on elimination and persistence

Guideline	Method	Rate of elimination	Classification
Not checked			Easy to eliminate

12.1.1 Valuation Elimination is produced partly by biological

decomposition, and partly by adsorption and

sedimentation processes in activated sludge flakes

12.1.2 Other data No disturbances of the degradation activity of the

> activated sludge are to be expected when appropriately introduced in small concentrations in adapted biological

clarification plants

12.2 Reaction in the environment

Information on the substances of the product 12.2.1

12.2.2 Other data No known negative behaviour

Low potential of accumulation

12.3 **Ecotoxic effects**

12.3.1 Aquatic toxicity

Sort	Value	Unit	Species	Method
Fish toxicity LC50	> 10	mg/l	Leuciscus idus	OECD 203

12.3.2 Additional information Low aquatic toxicity

12.3.3 Reactions in clarification Concentrations found in sewage do not cause

> disturbances plants

12.3.4 Additional information **Nothing**

Inhibition of activated sludge EC50: > 100 12.3.5

EC in mg/l

12.3.6 Other data Do not let it get into surface water/ground water

12.4 **Additional information**

12.4.1 COD mgO_2/g n.g. 12.4.2 BOD5 mgO_2/g n.g.

12.4.3 **AOX** informations

Does not produce an increase of the AOX value in the

sewage water

Guideline 76/464 EEC 12.4.4

Heavy metal	Percentage of heavy metal
Nothing	

12.4.5 Other data **Nothing**

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 Iwsbandung@yahoo.com
 PT. TUnas Jaya Lautan - Lampung PT. Lautan Warna Sari Group
 Jl. Daan Mogot Komp. Taman Surya Blok CC No. 15
 Phone: (021) 5684908, 5681251, 5681252; Fax: (021 5681252 HEAD OFFICE ;

Phone

JAKARTA Phone



Ш			
13.	Disposal considerations		
13.1	Product		
13.1.1	Recommendations for disposal procedures	May be deposited accord (systematic dump or burn	ing to the local regulations ing)
13.1.2	Waste key number (Germany) with waste designation	12503 fat-, oil- and wax-	emulsions
13.1.3	Nature of disposal	Plants for combustion of special waste which has to be particularly monitored	
13.1.4	Proof	Yes	
13.2	Polluted containers	-	
		Recommendation	Recommended detergent
		Empty totally and clean	Water with addition of cleaning media
13.3	Other data	Not necessary	
14.	Transport information		
14.1	Land transport ADR/RID and GGVS/GGVE		
14.1.1	Class		
14.1.2	Number / Letter		
14.1.3	Danger number		
14.1.4	UN-number		
14.1.5	Technical designation		
14.1.6	Further notes	No dangerous load for tra	nnsport
14.2	Inland navigation		
14.2.1 14.2.2	Class Number / letter		
14.2.2	Category		
14.2.4	Technical designation		
14.2.5	UN-number		
14.2.6	Further notes	Not proofed	
14.3	Ship transport IMDG/G	GVSee	
14.3.1	Class		
14.3.2	UN-number		
14.3.3	Packing group		
14.3.4	EMS-number		

No

Marine pollutant

MFAG

14.3.5

14.3.6



14.3.7 14.3.8	Technical designation Further notes	No dangerous load for transport	
14.4 14.4.1 14.4.2 14.4.3 14.4.4 14.4.5	Air transport ICAO-TI and Class UN-number Packing group Technical designation Further notes	IATA-DGR No dangerous load for transport	
15.	Regulatory information		
15.1 15.1.1	Classification according to EEC directives Hazard symbol and designation The product does not have to be identified according to EG-regulations and regulations for dangerous substance		
15.1.2 15.1.3 15.1.4	Dangerous component Risk-phrases Safety-phrases	Not applicable Not applicable	
15.1.5	Special identification signs of specific preparations (acc. to annex of guidelines for mixtures 89/379/EEC)	Not applicable	
15.2	National regulations (Germa	any)	
15.2.1	Advice about occupational limits	Not necessary	
15.2.2 15.2.2.1	Rules for accidents Materials generating accidents acc. to annex II		
15.2.2.1.	Name of the chemical acc. to Not applicable annex II with successive number		
15.2.3 15.2.3.1	Classification for fire hazard VbF-Class		
15.2.4 15.2.4.1 15.2.4.2	Classification acc. to the techr TA-air section TA-air class	nical air direction 3.1.7 III	
15.2.5	Classification for endangering water (WGK)	2 = hazardous to water (self-assessment)	
15.2.6	Other regulations, restrictions and "Verbot" laws	Not applicable	



16. **Other information**

MSDS Creation Date: July 21st, 2022 16.1 Information

Abbreviations: n.a. = not applicable, n.g. = not examined,n. bek. = not known Changes to the former edition of the safety data sheet are marked with a black vertical bar on the right side of the page.

The prementioned data are based on today's knowledge and are not a 100% guarantee. Existing laws and regulations are to be considered by the consignee of our product on his own responsibility.

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