Date of issue/ Date of revision : 11/28/2017 **Date of previous issue** : 4/27/2016

SAFETY DATA SHEET

TEMATHANE 50

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : TEMATHANE 50

Product description : A two-component polyurethane paint.

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

Identified uses
☑ Uses in Coatings - Industrial use. Uses in Coatings - Professional use.

1.3 Details of the supplier of the safety data sheet

Manufacturer or Distributor

Tikkurila Oyj
P.O. Box 53
FI-01301 VANTAA
FINLAND
Telephone +358 20 191 2000

e-mail address of person responsible for this SDS : Tikkurila Oyj,
Product Safety,
e-mail: productsafety@tikkurila.com

1.4 Emergency telephone number

Telephone number : 112
(24h)

Supplier or Manufacturer

Telephone number : ☑ Tikkurila Oyj
+358 20 191 2000 (GMT +2) Mon-Fri 8-16

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Irrit. 2, H319
Skin Sens. 1, H317
STOT SE 3, H335
STOT SE 3, H336
STOT RE 2, H373
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H226 - Flammable liquid and vapor.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General : Not applicable.

Prevention : P210 - Keep away from sparks and open flames. - No smoking.
P261 - Avoid breathing mist/vapors/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/clothing.
P284 - In case of inadequate ventilation wear respiratory protection.

Response : P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.

Storage : Not applicable.

Disposal : Not applicable.

Hazardous ingredients : Solvent naphtha (petroleum), light aromatic
Reaction mass of m-xylene, o-xylene, p-xylene and ethylbenzene
hydroxyl bearing polyacrylate
hydrocarbons, C9, aromatics
reaction product of bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate and methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate

Supplemental label elements : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

: Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Notes
Solvent naphtha (petroleum), light aromatic	REACH #: 01-2119455851-35 EC: 265-199-0 CAS: 64742-95-6	≤14	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	H-P
Reaction mass of m-xylene, o-xylene, p-xylene and ethylbenzene	REACH #: *) EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥10 - ≤25	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304	C
hydroxyl bearing polyacrylate	CAS: 37237-99-3	≤10	Skin Sens. 1, H317	-
hydrocarbons, C9, aromatics	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: -	≤6.5	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	H,P
reaction product of bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate and methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	REACH #: 01-2119491304-40 CAS: 41556-26-7/82919-37-7	≤0.38	Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	-

			See Section 16 for the full text of the H statements declared above.	

*) The REACH numbers of Reaction mass of m-xylene and o-xylene and p-xylene and ethylbenzene are 01-2119488216-32 and 01-2119555267-33.

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Notes, if applicable, refer to Notes given in Annex VI of 1272/2008/EC.

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Show this safety data sheet or label to the doctor if possible.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of lukewarm water, keeping eyelids open. Continue to rinse for at least 15 minutes. Get medical attention if symptoms occur.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. Get medical attention if symptoms occur.

Ingestion : If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Remove to fresh air and keep at rest in a position comfortable for breathing. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

May cause damage to organs through prolonged or repeated exposure.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire. Recommended: Alcohol resistant foam, CO_2, powders or water spray/mist.

Unsuitable extinguishing media : Do not use a direct water jet that could spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapor. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous combustion products : When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. This material is hazardous to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures : Provide adequate ventilation. Avoid breathing vapor or mist. Avoid direct skin contact with product. See Section 8 for information on appropriate personal protective equipment.

6.2 Environmental precautions : Hazardous to aquatic environment. Do not allow to enter drains, water courses or soil.

6.3 Methods and materials for containment and cleaning up : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling : Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. Isolate from sources of heat, sparks and open flame. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. No sparking tools should be used.
Skin contact with the product and exposure to spray mist and vapor should be avoided. Avoid inhalation of dust from sanding. Wear appropriate respirator when ventilation is inadequate. See Section 8 for information on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored. Wash hands before breaks and immediately after handling the product. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities : Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). No smoking. Store and use away from heat, sparks, open flame or any other ignition source. Keep container tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Recommended storage temperature is +5°C ...+25°C. Store in accordance with local regulations.

7.3 Specific end use(s) : See Appendices:
Uses in Coatings - Industrial use.
Uses in Coatings - Professional use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Reaction mass of m-xylene, o-xylene, p-xylene and ethylbenzene	**EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 50 ppm 8 hours. TWA: 221 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 442 mg/m³ 15 minutes.

Additional information

Ethylbenzene

EU OEL (Europe, 12/2009). Absorbed through skin.

TWA: 100 ppm 8 hours.
TWA: 442 mg/m³ 8 hours.
STEL: 200 ppm 15 minutes.
STEL: 884 mg/m³ 15 minutes.

Please check your local legislation for national OEL value for ethylbenzene.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Reaction mass of m-xylene, o-xylene, p-xylene and ethylbenzene	DNEL	Short term Inhalation	289 mg/m³	Workers	Local
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg	Workers	Systemic
	DNEL	Short term Inhalation	174 mg/m³	Consumers	Local
	DNEL	Long term Inhalation	14.8 mg/m³	Consumers	Systemic
	DNEL	Long term Dermal	108 mg/kg	Consumers	Systemic
	DNEL	Short term Inhalation	289 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	174 mg/m³	Consumers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Reaction mass of m-xylene, o-xylene, p-xylene and ethylbenzene	Fresh water	0.327 mg/l	-
	Marine water	0.327 mg/l	-
	Sewage Treatment Plant	6.58 mg/l	-
	Sediment	12.46 mg/kg	-
	Soil	2.31 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof ventilation equipment. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn (see Personal protection for both components). Comply with the health and safety at work laws.

Individual protection measures

Eye/face protection : Use safety eyewear designed to protect against splash of liquids (EN166).

Hand protection	:	Always wear approved protective gloves against chemicals. Gloves should be replaced regularly and if there is any sign of damage to the glove material. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Recommended glove material (EN374): < 1 hour (breakthrough time): nitrile rubber > 8 hours (breakthrough time): fluor rubber, laminated foil Not recommended: PVC or natural rubber (latex) gloves
Skin protection	:	Wear suitable protective clothing. This product is classified as flammable. If necessary, personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.
Respiratory protection	:	If ventilation is inadequate, use respirator that will protect against organic vapor and dust/mist. During spray-application use respirators with combination filter A/P3 (EN405:2001). Wear a half mask or full face respirator with gas and vapor filter A and dust filter P2 during sanding (EN140:1998, EN405:2001). During continuous and long-term work the use of motor-driven or air-fed respirators is recommended (EN12941:1998). Be sure to use an approved/certified respirator or equivalent. Check that mask fits tightly and change filter regularly.
Environmental exposure controls	:	For information regarding environmental protection measures, please refer to section 13 for waste handling, section 7 for handling and storage and section 1.2 for relevant identified uses of the substance or mixture and uses advised against.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance		
Physical state	:	Liquid.
Color	:	Coloured
Odor	:	Strong.
Odor threshold	:	Not relevant for the hazard assessment of the product.
pH	:	Not relevant for the hazard assessment of the product.
Melting point/freezing point	:	-94.96°C (xylene)
Initial boiling point and boiling range	:	136.16°C (xylene)
Flash point	:	25 °C (xylene)
Evaporation rate	:	0.77 (butyl acetate = 1) (xylene)
Flammability (solid, gas)	:	Not applicable. Product is a liquid.
Upper/lower flammability or explosive limits	:	Lower: 0.8% (xylene) Upper: 6.7% (xylene)
Vapor pressure	:	0.89 kPa [room temperature] (xylene)
Vapor density	:	3.7 (xylene)
Density	:	1.2 to 1.4 g/cm³
Solubility(ies)	:	insoluble in water.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	432°C (xylene)
Decomposition temperature	:	Not relevant for the hazard assessment of the product.
Viscosity	:	Kinematic (40°C): >20.5 mm²/s >30 s [ISO 3mm cup] >60 s [ISO 6mm cup]
Explosive properties	:	No explosive ingredients present.
Oxidizing properties	:	No oxidizing ingredients present.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : See Section 10.5.

10.2 Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : May present an explosion hazard when material is suspended in air in confined areas or equipment and subjected to spark, heat or flame.

10.4 Conditions to avoid : Avoid extreme heat and freezing. Avoid all possible sources of ignition (spark or flame).

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:
oxidizing agents
strong acids
strong alkalis

10.6 Hazardous decomposition products : When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There is no testdata available on the product itself.
The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Reaction mass of m-xylene, o-xylene, p-xylene and ethylbenzene	LC50 Inhalation Vapor	Rat	22 mg/l	4 hours
	LD50 Dermal	Rabbit	1700 mg/kg	-
	LD50 Dermal	Rat	1100 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-

Not classified.

Irritation/Corrosion

Causes skin irritation. Causes serious eye irritation.

Sensitization

May cause an allergic skin reaction.

Mutagenicity

Not classified.

Carcinogenicity

Not classified.

Reproductive toxicity

Not classified.

Teratogenicity

Not classified.

Specific target organ toxicity (single exposure)

May cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure)

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Not classified.

SECTION 12: Ecological information

Ecological testing has not been conducted on this product.
Do not allow to enter drains, water courses or soil.

The product is classified as environmetally hazardous according to Regulation (EC) 1272/2008.
Harmful to aquatic life with long lasting effects.

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), light aromatic	EC50 6.14 mg/l	Daphnia	48 hours
	LC50 9.22 mg/l	Fish	96 hours
hydrocarbons, C9, aromatics	LC50 1 mg/l	Fish	96 hours
reaction product of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	LC50 0.9 mg/l	Fish - Brachydanio rerio	96 hours
	LC50 0.97 mg/l	Fish - Lepomis macrochirus	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
hydrocarbons, C9, aromatics	-	78 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
hydrocarbons, C9, aromatics	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	Bioconcentration factor [BCF]	Potential
Reaction mass of m-xylene, o-xylene, p-xylene and ethylbenzene	3.12	8.1 to 25.9	low
Solvent naphtha (petroleum), light aromatic	-	10 to 2500	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : Not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : Gather residues into waste containers. Liquid residue and cleaning liquids are hazardous waste and must not be emptied into drains or sewage system, but handled in accordance with national regulations. Product residues should be left at special companies which have permission for gathering this kind of wastes.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal : Empty packaging should be recycled or disposed of in accordance with national regulations.

Special precautions : None.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	III	III	III
14.5 Environmental hazards	No.	No.	No.
Additional information	**Special provisions** 640 (E) **Viscous substance exemption** This class 3 material is not subject to regulation in packagings up to 450 L. Exempted according to 2.2.3.1.5 (Viscous substance exemption) **Tunnel code** (D/E)	**Emergency schedules (EmS)** F-E,S-E **Viscous substance exemption** This class 3 material is not subject to regulation in packagings up to 30 L. Exempted according to 2.3.2.5 (Viscous substance exemption)	-

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Other EU regulations

Europe inventory : Not determined.

VOC Directive : This product is in scope of Directive 2004/42/CE.

15.2 Chemical Safety Assessment : Complete.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
STOT RE 2, H373	Calculation method
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements :

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] :

Acute Tox. 4, H312	ACUTE TOXICITY (dermal) - Category 4
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Aquatic Acute 1, H400	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1, H410	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2, H411	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3, H412	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1

EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1
Skin Sens. 1A, H317	SKIN SENSITIZATION - Category 1A
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

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Notice to reader

This Safety Data Sheet is prepared in accordance with Annex II (EU) No 830/2015 to Regulation (EC) No 1907/2006 (REACH). The information contained in this Safety Data Sheet is based on the present state of knowledge and current EU and national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition	:	Mixture
Code	:	514-s
Product name	:	TEMATHANE 50

Section 1 - Title

Short title of the exposure scenario	:	Exposure Scenario: Uses in Coatings - Industrial use.
List of use descriptors	:	**Identified use name:** Uses in Coatings - Industrial use. **Process Category:** PROC05, PROC07, PROC08a, PROC08b, PROC10 **Substance supplied to that use in form of:** In a mixture **Sector of end use:** SU03 **Subsequent service life relevant for that use:** No. **Environmental Release Category:** ERC04, ERC05 **Article category related to subsequent service life:** Not applicable.
Environmental contributing scenarios	:	**ERC04, ERC05**
Health Contributing scenarios	:	**Mixing operations** **Rolling, Brushing** **Spraying** **Material transfers**
Processes and activities covered by the exposure scenario	:	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: ERC04, ERC05

Technical conditions and measures at process level (source) to prevent release	:	Prevent discharge of undissolved substance to or recover from onsite wastewater.
Organizational measures to prevent/limit release from site	:	Prevent environmental discharge consistent with regulatory requirements.
Conditions and measures related to external treatment of waste for disposal	:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	:	External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2: Mixing operations

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Technical conditions and measures at process level (source) to prevent release	:	Mixing operations Closed systems Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Mixing operations Open systems Preparation of material for application Provide a good standard of controlled ventilation (10 to 15 air changes per hour).
Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 3: Rolling, Brushing

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation control measures	:	Provide extract ventilation to points where emissions occur.
Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 4: Spraying

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation control measures	:	Spraying Manual Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear a respirator conforming to EN140 with type A filter or better. Spraying (automatic/robotic) Carry out in a vented booth provided with laminar airflow.
Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 5: Material transfers

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Technical conditions and measures at process level (source) to prevent release	:	Equipment cleaning and maintenance Drain or remove substance from equipment prior to break-in or maintenance. Dedicated facility Non-dedicated facility Ensure material transfers are under containment or extract ventilation.

Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition	:	Mixture
Code	:	514-s
Product name	:	TEMATHANE 50

Section 1 - Title

Short title of the exposure scenario	:	Exposure Scenario: Uses in Coatings - Professional use.
List of use descriptors	:	**Identified use name:** Uses in Coatings - Professional use. **Process Category:** PROC05, PROC08a, PROC10, PROC11 **Substance supplied to that use in form of:** In a mixture **Sector of end use:** SU22 **Subsequent service life relevant for that use:** No. **Environmental Release Category:** ERC08a, ERC08d **Article category related to subsequent service life:** Not applicable.
Environmental contributing scenarios	:	**ERC8a, ERC8d**
Health Contributing scenarios	:	**Mixing operations** **Spraying** **Rolling, Brushing** **Material transfers**
Processes and activities covered by the exposure scenario	:	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: ERC8a, ERC8d

Technical conditions and measures at process level (source) to prevent release	:	Prevent discharge of undissolved substance to or recover from onsite wastewater.
Organizational measures to prevent/limit release from site	:	Prevent environmental discharge consistent with regulatory requirements.
Conditions and measures related to external treatment of waste for disposal	:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	:	External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2: Mixing operations

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation control measures	:	Preparation of material for application Indoor Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Avoid carrying out activities involving exposure for more than 1 hour. or Wear a respirator conforming to EN140 with type A filter or better. Outdoor Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 1 hour. or Wear a respirator conforming to EN140 with type A filter or better.
Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 3: Spraying

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Technical conditions and measures to control dispersion from source towards the worker	:	Spraying Manual Indoor Carry out in a vented booth provided with laminar airflow. Outdoor Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 4 hours. Wear a respirator conforming to EN140 with type A filter or better. Wear suitable gloves tested to EN374.
Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 4: Rolling, Brushing

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Technical conditions and measures at process level (source) to prevent release	:	Indoor Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear a respirator conforming to EN140 with type A filter or better. Outdoor Ensure operation is undertaken outdoors. Wear a respirator conforming to EN140 with type A filter or better.
Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 5: Material transfers

Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Technical conditions and measures at process level (source) to prevent release	:	Equipment cleaning and maintenance Drain or remove substance from equipment prior to break-in or maintenance. Avoid carrying out activities involving exposure for more than 4 hours. or Wear a respirator conforming to EN140 with type A filter or better. Preparation of material for application Indoor Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Avoid carrying out activities involving exposure for more than 1 hour. or Wear a respirator conforming to EN140 with type A filter or better. Outdoor Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 1 hour. or Wear a respirator conforming to EN140 with type A filter or better.
Ventilation control measures	:	Ensure material transfers are under containment or extract ventilation.
Product safety-related measures	:	Personal protection See Section 8 of the safety data sheet (personal protective equipment).

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	:	Assumes a good basic standard of occupational hygiene is implemented