

Safety Data Sheet

Conforms to – Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by UK SI 2021/904

NEUTRO COLOR 04

Date of first edition: 1/5/2026

Safety Data Sheet dated 05/01/2026 version 1

kerakoll

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

1.1. Product identifier

Mixture identification:

Trade name: NEUTRO COLOR 04

Trade code: FBIFC604

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

Recommended use: N.A.

Uses advised against: All uses other than recommended ones

1.3. Details of the supplier of the safety data sheet

Kerakoll UK Ltd

Tomlinson Road, Leyland, Lancashire, PR25 2DY,

United Kingdom

Tel. 01772 456831

safety@kerakoll.co.uk

1.4. Emergency telephone number

UK National Poisons Information Service.

E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP regulation:

No specific hazards are encountered under normal product use.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Special Provisions:

EUH210 Safety data sheet available on request.

Contains

3-aminopropyltriethoxysilane May produce an allergic reaction.

Trimethoxyvinylsilane May produce an allergic reaction.

Special provisions according to Annex XVII of UK REACH:

None.

2.3. Other hazards

When mixtures containing cement react with water, for instance when making concrete or mortar, or when the cement becomes wet, a strong alkaline solution is produced (high pH caused by the formation of calcium, sodium and potassium hydroxides).

Cement and mixtures containing cement may irritate the eyes, the mucous system, the throat and the respiratory system and cause coughing. Frequent inhalation of cement dust or mixtures containing cement over a long period of time increases the risk of developing lung diseases.

In case of prolonged contact with the skin, both cement and mixtures containing cement, including pastes, may cause skin sensitisation due to the presence of trace amounts of chromium VI salts. Where necessary, such an effect can be minimized by incorporating a special reducing agent to maintain the water-soluble chromium VI content to concentration rates below 0.0002% (2 ppm) on the total dry weight of cement.

No PBT or vPvB substances present in concentration $\geq 0.1\%$

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of GB CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥1-<3 %	3-Aminopropyl(methyl)silsesquioxanes, ethoxy-terminated	CAS:128446-60-6 EC:603-274-5	Skin Irrit. 2, H315; Flam. Liq. 3, H226; Eye Irrit. 2, H319	
≥1-<3 %	Titanium dioxide	CAS:13463-67-7 EC:236-675-5 Index:022-006-00-2	Carc. 2, H351	
≥0.5-<1 %	3-aminopropyltriethoxysilane	CAS:919-30-2 EC:213-048-4 Index:612-108-00-0	Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317	
≥0.5-<1 %	Trimethoxyvinilsilane	CAS:2768-02-7 EC:220-449-8 Index:014-049-00-0	Skin Sens. 1B, H317; Flam. Liq. 2, H225; Acute Tox. 4, H332	

SECTION 4: First aid measures**4.1. Description of first aid measures**

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

N.A.

4.3. Indication of any immediate medical attention and special treatment needed

N.A.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non emergency personnel:**

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand
Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

The product must be stored in waterproof, dry, clean conditions and protected from contamination. Do not use aluminium containers due to incompatibility of the materials.

The product contains cement with an addition of a Chromium reducing agent (VI) and its effectiveness decreases with time. Consequently, packaging's of the material indicate information about the production date, storing conditions and the appropriate storage period for the maintaining of the activity of the reducing agent and for maintaining the soluble Chromium (VI) amount under 2ppm over the total dry weight referred to cement (BS EN 196-10).

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
Titanium dioxide CAS: 13463-67-7	ACGIH		Long Term: 2.5 mg/m ³ (8h) Finescale particles; R ; A3 - LRT irr, pneumoconiosis
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
Carbon black CAS: 1333-86-4	ACGIH		Long Term: 3 mg/m ³ (8h) I, A3 - Bronchitis
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 3.5 mg/m ³ ; Short Term: 7 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
ethanol; ethyl alcohol CAS: 64-17-5	ACGIH		Short Term: 1000 ppm A3 - URT irr
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1920 mg/m ³ - 1000 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
methanol CAS: 67-56-1	ACGIH		Long Term: 200 ppm (8h); Short Term: 250 ppm Skin, BEI - Headache, eye dam, dizziness, nausea

WEL-EH40 UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND Long Term: 266 mg/m³ - 200 ppm; Short Term: 333 mg/m³ - 250 ppm
Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

Predicted No Effect Concentration (PNEC) values

Titanium dioxide CAS: 13463-67-7	Exposure Route: Fresh Water; PNEC Limit: 0.184 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.018 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1 mg/kg
	Exposure Route: Intermittent releases (marine water); PNEC Limit: 100 mg/kg
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/kg
3-aminopropyltriethoxysilane CAS: 919-30-2	Exposure Route: Fresh Water; PNEC Limit: 330 µg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 3.3 mg/l
	Exposure Route: Marine water; PNEC Limit: 33 µg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 13 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 1.2 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 120 µg/kg
	Exposure Route: Soil; PNEC Limit: 50 µg/kg
Trimethoxyvinylsilane CAS: 2768-02-7	Exposure Route: Fresh Water; PNEC Limit: 400 µg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 2.4 mg/l
	Exposure Route: Marine water; PNEC Limit: 40 µg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 6.6 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 1.5 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 150 µg/kg
	Exposure Route: Soil; PNEC Limit: 60 µg/kg

Derived No Effect Level (DNEL) values

Titanium dioxide CAS: 13463-67-7	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 10 mg/m ³
3-aminopropyltriethoxysilane CAS: 919-30-2	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 59 mg/m ³ ; Consumer: 17.4 mg/m ³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 59 mg/m ³ ; Consumer: 17.4 mg/m ³
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 8.3 mg/kg; Consumer: 5 mg/kg
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Worker Professional: 8.3 mg/kg; Consumer: 5 mg/kg
Trimethoxyvinylsilane CAS: 2768-02-7	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 27.6 mg/m ³ ; Consumer: 6.7 mg/m ³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 260 mg/m ³ ; Consumer: 50 mg/m ³
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Worker Professional: 3.9 mg/kg; Consumer: 7.8 mg/kg
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 300 µg/kg

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

N.A.

Thermal Hazards:

Not expected if used as intended

Environmental exposure controls:

Prevent the product from entering sewers or surface and underground water.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: N.A.

Appearance and colour: N.A.

Odour: N.A.

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: N.A.

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: N.A.

Solubility in water: N.A.

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Viscosity: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Solid/gas flammability: N.A.

Volatile Organic compounds - VOCs = 0.00 % ; 0.00 g/l

9.2. Other information

Substance Groups relevant properties N.A.

Miscibility: N.A.

Conductivity: N.A.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information of the Preparation

a) acute toxicity

Not classified

	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified
	Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Titanium dioxide	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg LC50 Inhalation > 6.82 mg/l LD50 Skin Rat > 2000 mg/kg	
	c) serious eye damage/irritation	Eye Corrosive Negative	
		Eye Irritant No	
	d) respiratory or skin sensitisation	Skin Sensitization Negative	
	i) STOT-repeated exposure	No Observed Adverse Effect Level 1000	
3-aminopropyltriethoxysilane	a) acute toxicity	LD50 Oral Rat = 1460 mg/kg LC50 Inhalation Vapour Rat Negative 6h LD50 Skin Rabbit = 4076 mg/kg 24h	
	b) skin corrosion/irritation	Skin Corrosive Rabbit Positive	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Positive	
	f) carcinogenicity	Genotoxicity Negative	Mouse intraperitoneal route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 600 mg/kg	
Trimethoxyvinylsilane	a) acute toxicity	LD50 Oral Rat = 7.34 ml/Kg LC50 Inhalation Vapour Rat = 2773 Ppm 4h LD50 Skin Rabbit = 3.36 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 24h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No 24h	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Positive	
	f) carcinogenicity	Genotoxicity Rat Negative	Inhalation route

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
Titanium dioxide	CAS: 13463-67-7 - EINECS: 236-675-5 - INDEX: 022-006-00-2	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (Cavedano americano) > 1000 mg/L 96h a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata (alghe cloroficee) > 100 mg/L 72h a) Aquatic acute toxicity : NOEC Algae = 5600 mg/L a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna (Pulce d'acqua grande) > 100 mg/L 48h
3-aminopropyltriethoxysilane	CAS: 919-30-2 - EINECS: 213-048-4 - INDEX: 612-108-00-0	a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio > 934 mg/L 96h a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 331 mg/L 48h a) Aquatic acute toxicity : EC50 Algae Scenedesmus subspicatus > 1000 mg/L 72h c) Bacteria toxicity : EC50 Pseudomonas putida = 43 mg/L
Trimethoxyvinilsilane	CAS: 2768-02-7 - EINECS: 220-449-8 - INDEX: 014-049-00-0	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 137 mg/L 96h a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 121 mg/L 48h b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 20 mg/L - 21days a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata > 89 mg/L 72h a) Aquatic acute toxicity : EC10 microorganisms > 100 mg/L 3h OECD 209

12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Value	Notes:
3-aminopropyltriethoxysilane	Non-readily biodegradable	Dissolved organic carbon	67.000	%; EU method C4-A; 28days

Trimethoxyvinilsilane Readily biodegradable

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:
3-aminopropyltriethoxysilane	Bioaccumulative	BCF - Bioconcentration factor	3.400	OECD 305

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration $\geq 0.1\%$

12.6. Other adverse effects

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Recover if possible. In so doing, comply with the local and national regulations currently in force. Disposal through discharge into wastewater is not permitted

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number**14.2. UN proper shipping name**

N.A.

14.3. Transport hazard class(es)

ADR-Class: N.A.

14.4. Packing group

N.A.

ADR-Packing Group:

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

N.A.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Workplace exposure limit within the meaning of the Control of Substances Hazardous to Health Regulations 2002 (WEL-EH40)

REACH regulation as changed by the REACH etc. (Amendment etc.) (EU Exit) Regulations (UK REACH)

CLP regulation as changed by the Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations (GB CLP)

GB PIC legislation - (Regulation (EU) No 649/2012 as changed by the Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc) (EU Exit) Regulations

Restrictions related to the product or the substances contained according to Annex XVII of UK REACH:

Restrictions related to the product: 3

Restrictions related to the substances contained: 40, 52, 69

Additional Regulatory Information for Great Britain

No Additional Information

Provisions related to the Control of Major Accident Hazards Regulations 2015 (GB implementation of Seveso III):

None

GB PIC Legislation:

No substances listed

SVHC Substances:

No SVHC substances present in concentration $\geq 0.1\%$

UK regulations implementing Dir. 2010/75/EC (VOC directive)

Volatile Organic compounds - VOCs = 0.00 %

Volatile Organic compounds - VOCs = 0.00 g/L

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

3-aminopropyltriethoxysilane

Trimethoxyvinylsilane

SECTION 16: Other information

Code	Description
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer if inhaled.

Code	Hazard class and hazard category	Description
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.6/2	Carc. 2	Carcinogenicity, Category 2

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: Keep Away From Heat
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.



Exposure Scenario

Trimethoxyvinilsilane

Exposure Scenario, 08/06/2021

Substance identity	
	Trimethoxyvinilsilane
CAS No.	2768-02-7
INDEX No.	014-049-00-0
EINECS No.	220-449-8
Registration number	01-2119513215-52

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1. ES 1

1. ES 1

1.1 TITLE SECTION

Exposure Scenario name	Use in rigid foams, coatings, adhesives and sealants - Barrier (Sealant)
Date - Version	18/05/2021 - 1.0
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22) - Building and construction work (SU19)
Product Categories	Adhesives, sealants (PC1)

Environment Contributing Scenario

CS1 Low environmental release	ERC8c - ERC8f
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Worker Contributing Scenario

CS2 Wiping - Hand application - finger paints, pastels, adhesives - Preparation of material for application	PROC0
CS3 Wiping - Hand application - finger paints, pastels, adhesives - Preparation of material for application	PROC1

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Low environmental release (ERC8c, ERC8f)

Environmental release categories	Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8c, ERC8f)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Concentration after dilution for use maximum [%]: 0.7 %

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site = 0.28 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

	Water - minimum efficiency of: 1.5 %
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Conditions and measures related to sewage treatment plant

STP type:

Onsite Sewage Treatment Plant

Water - minimum efficiency of: = 0.013 %

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Dispose of waste product or used containers according to local regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Receiving surface water flow: 20000 m³/day

Covers indoor and outdoor use	
1.2. CS2: Worker Contributing Scenario: Wiping - Hand application - finger paints, pastels, adhesives - Preparation of material for application (PROC0)	
Process Categories	Other (PROC0)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Concentration of substance in product: Covers concentrations up to 0.7 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Exposure duration <= 6 h	
Frequency: Use frequency = 250 days per year	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). For further specification, refer to section 8 of the SDS.	
<i>Other conditions affecting worker exposure</i>	
Covers indoor and outdoor use Professional use Room size: Covers use in room size of = 20 m ³ Temperature: Covers use at ambient temperatures. 25°C	
1.2. CS3: Worker Contributing Scenario: Wiping - Hand application - finger paints, pastels, adhesives - Preparation of material for application (PROC1)	
Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Concentration of substance in product: Covers concentrations up to 2 %	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Exposure duration = 8 h	
Frequency: Use frequency = 1 days per year	
Duration: Covers use up to = 6 h	
Frequency: Use frequency = 1 days per year	
<i>Other conditions affecting worker exposure</i>	
Covers indoor and outdoor use Professional use Room size: Covers use in room size of = 20 m ³ Ventilation rate: = 0.6 ach (air changes per hour)	
1.3 Exposure estimation and reference to its source	
1.3. CS2: Worker Contributing Scenario: Wiping - Hand application - finger paints, pastels, adhesives - Preparation of material for application (PROC0)	

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 1.9 mg/m ³	N/A	= 0.069
dermal, long-term	= 4.53 mg/kg bw/day	ConsExpo	= 0.038
combined routes, long-term	N/A	N/A	0.107

1.3. CS3: Worker Contributing Scenario: Wiping - Hand application - finger paints, pastels, adhesives - Preparation of material for application (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 4.57 mg/m ³	N/A	= 0.682
dermal, long-term	= 0.044 mg/kg bw/day	ConsExpo	< 0.01
combined routes, short-term	N/A	N/A	0.682

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.



Exposure Scenario

3-aminopropyltriethoxysilane

Exposure Scenario, 14/07/2021

Substance identity	
	3-aminopropyltriethoxysilane
CAS No.	919-30-2
INDEX No.	612-108-00-0
EINECS No.	213-048-4
Registration number	01-2119480479-24

Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC9a, PC1)

1. ES 1		Widespread use by professional workers; Various products (PC9a, PC1)
1.1 TITLE SECTION		
Exposure Scenario name	Professional application of coatings and inks by spraying - Use in rigid foams, coatings, adhesives and sealants	
Date - Version	14/07/2021 - 1.0	
Life Cycle Stage	Widespread use by professional workers	
Main user group	Professional uses	
Sector(s) of use	Professional uses (SU22)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a) - Adhesives, sealants (PC1)	
Worker Contributing Scenario		
CS1 Rolling, Brushing	PROC10	
CS2 Roller, spreader, flow application	PROC11	
1.2 Conditions of use affecting exposure		
1.2. CS1: Worker Contributing Scenario: Rolling, Brushing (PROC10)		
Process Categories	Roller application or brushing (PROC10)	
Product (article) characteristics		
Physical form of product: Liquid		
Concentration of substance in product: Covers concentrations up to 2 %		
Amount used, frequency and duration of use/exposure		
Amounts used: Annual site tonnage = 0.2 t(tonnes)/year Daily amount per site = 0.5 kg/day		
Duration: Exposure duration = 4 h		
Frequency: Covers exposure up to = 365 days per year		
Technical and organisational conditions and measures		
Technical and organisational measures Provide a basic standard of general ventilation (1 to 3 air changes per hour). Use in contained systems For further specification, refer to section 8 of the SDS.		
Conditions and measures related to personal protection, hygiene and health evaluation		
Personal protection Wear suitable respiratory protection. For further specification, refer to section 8 of the SDS.		
1.2. CS2: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)		
Process Categories	Non industrial spraying (PROC11)	
Product (article) characteristics		
Physical form of product: Liquid		
Concentration of substance in product: Covers concentrations up to 2 %		

Amount used, frequency and duration of use/exposure

Amounts used:

Annual site tonnage = 0.2 t(tonnes)/year

Daily amount per site = 0.5 kg/day

Duration:

Exposure duration = 4 h

Frequency:

Covers exposure up to = 365 days per year

Technical and organisational conditions and measures

Technical and organisational measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

Use in contained systems

For further specification, refer to section 8 of the SDS.

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

Personal protection

Wear suitable respiratory protection.

For further specification, refer to section 8 of the SDS.

1.3 Exposure estimation and reference to its source

1.3. CS1: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal	= 0.055 mg/kg bw/day	ECETOC TRA worker v3	N/A
inhalative	= 1.8 mg/m ³	ECETOC TRA worker v3	N/A

1.3. CS2: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal	= 0.21 mg/kg bw/day	ECETOC TRA worker v3	N/A
inhalative	= 46 mg/m ³	ECETOC TRA worker v3	N/A

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.