

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

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

1.1 Product identifier

Trade name: **FORMULA 2T**

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

No further relevant information available.

Application of the substance / the mixture

Engine oil

Only for proper handling.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

MOTOREX AG

Bern–Zürich–Strasse 31, Postfach

CH–4901 Langenthal

Tel. +41 (0)62 919 75 75

www.motorex.com

Further information obtainable from: msds@motorex.com

1.4 Emergency telephone number:

In case of a medical emergency following exposure to a chemical, the public should call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 (UK only).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the GB CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Additional information:

Contains A mixture of: dicalcium (bis(2-hydroxy-5-tetra-propenylphenylmethyl)methylamine) dihydroxide tri-calcium (tris(2-hydroxy-5-tetra-propenylphenylmethyl)-methylamine)tri-hydroxide poly[calcium ((2-hydroxy-5-tetra-propenylphenylmethyl)-methylamine)hydroxide]. May produce an allergic reaction.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

EC number: 926-141-6 Reg.nr.: 01-2119456620-43	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics Asp. Tox. 1, H304, EUH066	10-25%
ELINCS: 420-470-4 Index number: 020-003-00-0	A mixture of: dicalcium (bis(2-hydroxy-5-tetra-propenylphenylmethyl)methylamine)dihydroxide tri-calcium (tris(2-hydroxy-5-tetra-propenylphenylmethyl)-methylamine)tri-hydroxide poly[calcium ((2-hydroxy-5-tetra-propenylphenylmethyl)-methylamine)hydroxide] Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	0.1-0.25%

(Contd. on page 2)

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 1)

· Regulation (EC) No 648/2004 on detergents / Labelling for contents

aliphatic hydrocarbons

≥15 - <30%

· Additional information:

Note L: The classification as carcinogen does not apply because the mixture (or substance) contains less than 3% dimethyl sulfoxide extract (DMSO), measured according to IP 346.

For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Remove residues with soap and water.

Remove contaminated clothing immediately.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

Consult a physician if irritation develops.

· **After swallowing:**

Do not induce vomiting. Do not take in resorption stimulating agents.

Consult a physician who will decide on need and method of emptying the stomach.

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

Carbon dioxide, dry chemical and foam protein.

Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents: DO NOT USE WATER JET**

· **5.2 Special hazards arising from the substance or mixture**

In case of fire carbon, sulphur and nitrogen oxides can be formed.

· **5.3 Advice for firefighters**

· **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **6.4 Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

GB

(Contd. on page 3)

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: **FORMULA 2T**

(Contd. of page 2)

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Vapours of this product are heavier than air and will collect in low areas such as pits, storage tanks, and other confined areas.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Store containers closed and protect against rain, dust, heat and other atmospheric influences.

The recommended storage temperature is (deg.C): $\leq 50^{\circ}\text{C}$

Store in cool, dry well ventilated area away from sources of ignition and heat.

Storage class: 10

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Respiratory protection: Not required.

Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection Goggles recommended during refilling

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state

Liquid

Colour:

Green

(Contd. on page 4)

Safety data sheet

according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 3)

· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	Undetermined.
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	109 °C
· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	57.7 mm ² /s @ 40 °C
· Consistency	9.1 mm ² /s @ 100 °C
· Dynamic:	Not determined.
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Heat Capacity	
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	0.86 g/cm ³ (ASTM D 4052)
· Relative density	Not determined.
· Vapour density	Not determined.
9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Explosive properties:	Product does not present an explosion hazard.
· Solvent separation test:	
· VOC (EC)	19.79 %
· Change in condition	
· Solidification point:	
· Pouring point	-18.7 °C
· Evaporation rate	Not determined.
Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void

(Contd. on page 5)

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 4)

- | | |
|----------------------------------|------|
| · Organic peroxides | Void |
| · Corrosive to metals | Void |
| · Desensitised explosives | Void |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Other easily oxidised non-ferrous metals.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

Oral	LD50	5,000-15,000 mg/kg (rat)
	NOAEL	1,000-5,000 mg/kg/24h (rat)
Dermal	LD50	2,000 mg/kg (rat)
	LC50 / 4h	4.951-6.1 mg/l (rat) (OECD 403)
Inhalative	NOAEL	200 ppm (rat)
	NOAEC	275-10,400 mg/m3 (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

LL50	2-5 mg/l/96h (fish)
LL50	2-5 mg/l/48h (fish)
LL50	5-17 mg/l/24h (fish)

(Contd. on page 6)

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 5)

EL50	1.4 mg/l/48h (aquatic invertebrates)
EL50	4.6 mg/l/24h (aquatic invertebrates)
	1-3 mg/l/24h (algae / cyanobacteria)
EL50	1-3 mg/l/72h (algae / cyanobacteria)
EL50	0.81-0.89 mg/l/21d (aquatic invertebrates)
NOELR	1.22 mg/l/21d (aquatic invertebrates)
NOELR	1,000 mg/l/72h (algae / cyanobacteria)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (according to Appendix 1 AwSV): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Return product and/or partially emptied container in original packaging to the point of sale or hand it over to a collection point for special waste.

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN number or ID number	
· ADR/RID/ADN, ADN, IMDG, IATA	Not classified as hazardous for transport
· 14.2 UN proper shipping name	
· ADR/RID/ADN, ADN, IMDG, IATA	Not classified as hazardous for transport
· 14.3 Transport hazard class(es)	
· ADR/RID/ADN, ADN, IMDG, IATA	
· Class	Not classified as hazardous for transport
· 14.4 Packing group	
· ADR/RID/ADN, IMDG, IATA	Not classified as hazardous for transport
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.

(Contd. on page 7)

GB

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 6)

- | | |
|---|---|
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| · UN "Model Regulation": | Not classified as hazardous for transport |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**
- **Regulated explosives precursors**
None of the ingredients is listed.
- **Regulated poisons**
None of the ingredients is listed.
- **Reportable explosives precursors**
None of the ingredients is listed.
- **Reportable poisons**
None of the ingredients is listed.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

- **purity requirement**
- **Relevant phrases**
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
EUH066 Repeated exposure may cause skin dryness or cracking.
- **Department issuing SDS:** Abteilung Produktsicherheit
- **Abbreviations and acronyms:**
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Asp. Tox. 1: Aspiration hazard – Category 1
- *** Data compared to the previous version altered.**

Annex: Exposure scenario 1

- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.

(Contd. on page 8)

GB

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: **FORMULA 2T**

(Contd. of page 7)

- **Physical parameters**
- **Physical state** *Fluid*
- **Concentration of the substance in the mixture** *The substance is main component.*
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** *No special measures required.*
- **Other operational conditions affecting worker exposure**
Avoid contact with the skin.
Avoid long-term or repeated skin contact.
- **Other operational conditions affecting consumer exposure** *Not required.*
- **Other operational conditions affecting consumer exposure during the use of the product**
Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** *No special measures required.*
- **Technical protective measures**
No special measures required.
Ensure that suitable extractors are available on processing machines
- **Personal protective measures**
No special measures required.
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Measures for consumer protection**
No special measures required.
Ensure adequate labelling.
- **Environmental protection measures**
- **Air** *No special measures required.*
- **Water** *No special measures required.*
- **Disposal measures**
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
- **Disposal procedures**
Dispose of product residues with household waste.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Waste type** *Partially emptied and uncleaned packaging*
- **Exposure estimation**
- **Consumer** *Not relevant for this Exposure Scenario.*
- **Guidance for downstream users** *No further relevant information available.*

Annex: Exposure scenario 2

- **Short title of the exposure scenario**
Industrial use of lubricants and greases in vehicles or machinery
- **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Product category**
PC16 Heat transfer fluids
PC17 Hydraulic fluids
PC24 Lubricants, greases, release products
- **Process category**
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

(Contd. on page 9)

GB

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 8)

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

· **Environmental release category**

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC7 Use of functional fluid at industrial site

· **Description of the activities / processes covered in the Exposure Scenario**

See section 1 of the annex to the Safety Data Sheet.

· **Conditions of use**

· **Duration and frequency** 5 workdays/week.

· **Physical parameters**

· **Physical state** Fluid

· **Concentration of the substance in the mixture** The substance is main component.

· **Other operational conditions**

· **Other operational conditions affecting environmental exposure** No special measures required.

· **Other operational conditions affecting consumer exposure** Not required.

· **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.

· **Risk management measures**

· **Worker protection**

· **Organisational protective measures** No special measures required.

· **Technical protective measures** No special measures required.

· **Personal protective measures** No special measures required.

· **Measures for consumer protection** No special measures required.

· **Environmental protection measures**

· **Air** No special measures required.

· **Water** No special measures required.

· **Disposal measures**

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

· **Disposal procedures** Dispose of product residues with household waste.

· **Waste type** Partially emptied and uncleaned packaging

· **Exposure estimation**

· **Consumer** Not relevant for this Exposure Scenario.

· **Guidance for downstream users** No further relevant information available.

Annex: Exposure scenario 3

· **Short title of the exposure scenario**

Professional use of lubricants and greases in vehicles or machines

· **Sector of Use**

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· **Product category**

PC16 Heat transfer fluids

PC17 Hydraulic fluids

PC24 Lubricants, greases, release products

· **Process category**

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC20 Use of functional fluids in small devices

(Contd. on page 10)

Safety data sheet according to UK REACH



Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 9)

- **Environmental release category**
 ERC9a Widespread use of functional fluid (indoor)
 ERC9b Widespread use of functional fluid (outdoor)
- **Description of the activities / processes covered in the Exposure Scenario**
 See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
 Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures**
 Disposal must be made according to official regulations.
 Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

Annex: Exposure scenario 4

- **Short title of the exposure scenario** Private use of lubricants and greases in vehicles or machines
- **Sector of Use** SU21 Consumer uses: Private households / general public / consumers
- **Product category** PC24 Lubricants, greases, release products
- **Environmental release category**
 ERC9a Widespread use of functional fluid (indoor)
 ERC9b Widespread use of functional fluid (outdoor)
- **Description of the activities / processes covered in the Exposure Scenario**
 See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
 Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.

(Contd. on page 11)

Safety data sheet
according to UK REACH

Printing date 25.03.2025

Version number 3.0 (replaces version 2.1)

Revision: 25.03.2025

Trade name: FORMULA 2T

(Contd. of page 10)

- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures**
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
- **Disposal procedures** Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

GB