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

- · 1.1 Product identifier
- · Trade name: POWER SYNT 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 (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	Hydrocarbons, C11-C14, n-alkanes, isoalkanes,	25-50%
Reg.nr.: 01-2119456620-43	cycloalkanes, <2% aromatics	
	Asp. Tox. 1, H304, EUH066	
ELINCS: 420-470-4	A mixture of: dicalcium (bis(2-hydroxy-5-tetra-	≥0.25-<1%
Index number: 020-003-00-0	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	

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

aliphatic hydrocarbons ≥15 - <30%

· Additional information: 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.
- After swallowing:

Do not induce vomitting. 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:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· 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.

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.

Use only in well ventilated areas.

· Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.

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- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions:

The recommended storage temperature is (deg.C): ≤50°C

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

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 stateColour:Red

Odour: Characteristic
 Odour threshold: Not determined.
 Melting point/freezing point: Undetermined.

· Boiling point or initial boiling point and

boiling range 200 °C (DIN EN ISO 3405)

· Flammability Not applicable.

· Lower and upper explosion limit

• **Lower:** 0.6 Vol % • **Upper:** 6.5 Vol %

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· Flash point: 98 °C

Auto-ignition temperature:
 Decomposition temperature:
 pH
 210 °C (DIN 51794)
 Not determined.
 Not determined.

· Viscosity:

• Kinematic viscosity 51.3 mm²/s @ 40 °C (DIN 51562-1)

· Consistency

Dynamic: Not determined.

Solubility

water: Not miscible or difficult to mix.

· Partition coefficient n-octanol/water (log

value) Not determined.

Heat Capacity

Vapour pressure at 20 °C: 1 hPa

Density and/or relative density

• **Density at 20 °C:** 0.873 g/cm³ (ASTM D 4052)

Relative densityVapour densityNot determined.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.

Void

Solvent separation test:

· **VOC (EC)** 25.5 %

Change in condition

· Solidification point: - 45 °C

· Evaporation rate Not determined.

· Information with regard to physical hazard

classes · Explosives Void · Flammable gases Void Void · Aerosols · Oxidising gases Void · Gases under pressure Void · Flammable liquids Void · Flammable solids Void · Self-reactive substances and mixtures Void · Pyrophoric liquids Void · Pvrophoric solids Void

· Self-heating substances and mixtures · Substances and mixtures, which emit

flammable gases in contact with water
Oxidising liquids
Oxidising solids
Organic peroxides
Corrosive to metals
Desensitised explosives
Void

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

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- · 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 No further relevant information available.
- · 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:			
Hydrocar	bons, 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)	
Inhalative	LC50 / 4h	4.951-6.1 mg/l (rat) (OECD 403)	
	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)	
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)	
NOELF	1.22 mg/l/21d (aquatic invertebrates)	
NOELF	1,000 mg/l/72h (algae / cyanobacteria)	

12.2 Persistence and degradability No further relevant information available.

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- · 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.

14.1 UN number or ID number ADR/RID/ADN, ADN, IMDG, IATA	Not classified as hazardous for transport
4.2 UN proper shipping name DR/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.
14.7 Maritime transport in bulk accordi IMO instruments	ng to Not applicable.
UN "Model Regulation":	Not classified as hazardous for transport

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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

· 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.

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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 2

· 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

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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 3

- · 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.

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- · 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