Safety Data Sheet
according to WHS Regulations

Printing date 29.01.2024 Version number 3.1 Revision: 29.01.2024

*
1 Identification

· **Product identifier**

· **Trade name: Battery reactivator**

· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture**
Anticorrosion additive
Only for proper handling.

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**

MOTOREX
Bern–Zürich–Strasse 31, Postfach
CH–4901 Langenthal
Tel. +41 (0)62 919 75 75
www.motorex.com

A1 Accessory Imports
60-62 Burchill St.
Loganholme
4129 QLD
Australia
Phone : 07 3451 1300

· **Further information obtainable from:** msds@motorex.com
· **Emergency telephone number:**
In case of a medical emergency following exposure to a chemical, call Poisons Information Centre Australia 13 11 26

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2 Hazard(s) Identification

· **Classification of the substance or mixture**

Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
STOT SE 3	H336	May cause drowsiness or dizziness.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.

· **Label elements**
· **GHS label elements**
The product is classified and labelled according to the Globally Harmonised System (GHS).
· **Hazard pictograms**

GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
isopentane
· **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

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P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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3 Composition and Information on Ingredients

· **Chemical characterisation: Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane, pure Flam. Gas 1, H220; Press. Gas C, H280	25-50%
EC number: 920-750-0	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3, H336	≥20-<25%
CAS: 84418-50-8 EINECS: 282-762-6	Naphthenic acids, zinc salts, basic Eye Irrit. 2, H319; Skin Sens. 1, H317	0.1-0.25%

· **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.

4 First Aid Measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** If symptoms persist consult doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Protective equipment:** No special measures required.

6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

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· **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

· **Handling:**
· **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurised containers.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
The recommended storage temperature is (deg.C): ≤50°C
Keep container tightly sealed.
· **Storage class:** 2 B
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls and personal protection

· **Additional information about design of technical facilities:** No further data; see section 7.

· **Ingredients with limit values that require monitoring at the workplace:**		
106-97-8 butane, pure		
WES	Long-term value: 1900 mg/m³, 800 ppm	
74-98-6 propane		
WES	Asphyxiant	

· **DNELs**		
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics		
Oral	DNEL/general population/Systemic effects/Long-term	699 mg/kg/24h (consumer)
Dermal	DNEL / Workers / Systemic effects / Long-term	773 mg/kg/24h (worker)
	DNEL/general population/Systemic effects/Long-term	699 mg/kg/24h (consumer)
Inhalative	DNEL / Workers / Systemic effects / Long-term	2,035 mg/m3 (worker)
	DNEL/general population/Systemic effects/Long-term	608 mg/m3 (consumer)

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

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· **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Not necessary if room is well-ventilated.
Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.
· **Protection of hands:**
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 protection:** Not required.
· **Body protection:** Protective work clothing

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9 Physical and Chemical Properties

· **General Information**	
· **Appearance:**	
· **Form:**	Liquefied gas
· **Colour:**	greenish
· **Odour:**	Solvent-like
· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
· **Melting point/freezing point:**	Undetermined.
· **Initial boiling point and boiling range:**	Not applicable, as aerosol.
· **Flash point:**	<-40 °C
· **Flammability (solid, gas):**	Not applicable.
· **Auto-ignition temperature:**	310 °C (DIN 51794)
· **Decomposition temperature:**	Not determined.
· **Explosive properties:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Explosion limits:**	
· **Lower:**	0.9 Vol %
· **Upper:**	8.5 Vol %
· **Vapour pressure at 20 °C:**	2,100 hPa
· **Density at 20 °C:**	0.68 g/cm³ (ASTM D 4052)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
· **Dynamic:**	Not determined.
· **Kinematic:**	Not determined.

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· **Other information** No further relevant information available.

10 Stability and Reactivity

· **Reactivity** No further relevant information available.
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological Information

· **Information on toxicological effects**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
106-97-8 butane, pure		
Inhalative	LC50 / 15 min	1,442.738-1.443 mg/l (rat)
	LC50 / 15 min	800,000 ppm (rat)
	LC50 / 2h	1,237 mg/l (mouse)
	LC50 / 2h	520,400-539,600 ppm (mouse)
	LC50 / 4h	658 mg/l (rat)
	NOAEC	4,000-16,000 ppm (rat)
	NOAEC	7.2-21.4 mg/l (rat)
	LOAEC	21.6 mg/l (rat)
	LOAEC	12,000 ppm (rat)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics		
Oral	LD50	8 ml/kg (rat)
Dermal	LD50	4 ml/kg (rat)
	LD50	2,800-3,100 mg/kg (rat)
Inhalative	LC50 / 4h	23.3 mg/l (rat)
	NOAEC	5.8-24.3 mg/l (rat)

· **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** May cause drowsiness or dizziness.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** May be fatal if swallowed and enters airways.

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12 Ecological Information

· **Toxicity**

· **Aquatic toxicity:**	
106-97-8 butane, pure	
LC50	24.1-147.5 mg/l/96h (fish)
LC50	14.2-69.4 mg/l/48h (aquatic invertebrates)
EC50	7.7-19.4 mg/l/96h (algae / cyanobacteria)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	
EC50	0.23 mg/l/21d (aquatic invertebrates)
EC50	0.64 mg/l/48h (aquatic invertebrates)
LL50	3-10 mg/l/96h (fish)
LL50	10-30 mg/l/72h (fish)
LL50	10-30 mg/l/48h (fish)
LL50	30-100 mg/l/24h (fish)
LL0	3 mg/l/96h (fish)
EL50	13 mg/l/96h (algae / cyanobacteria)
EL50	4.6-10 mg/l/48h (aquatic invertebrates)
	10-30 mg/l/48h (algae / cyanobacteria)
EL50	10-22 mg/l/24h (aquatic invertebrates)
	10-30 mg/l/24h (algae / cyanobacteria)
EL50	10-30 mg/l/72h (algae / cyanobacteria)
EL0	4.6 mg/l/48h (aquatic invertebrates)
EL0	10 mg/l/24h (aquatic invertebrates)
NOEC	0.17 mg/l/21d (aquatic invertebrates)
NOELR	0.574 mg/l/28d (fish)
NOELR	1 mg/l/21d (aquatic invertebrates)
NOELR	6.3 mg/l/96h (algae / cyanobacteria)
LOEC	0.32 mg/kg/28d (aquatic invertebrates)

· **Persistence and degradability** No further relevant information available.
· **Behaviour in environmental systems:**

· **Bioaccumulative potential**	
106-97-8 butane, pure	
Partition coefficient	1.09-2.8 [---] (log Kow) (Bioaccumulation)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	
Biodegradability	98 % (28d) (Biodegradability) (OECD 301 F)

· **Mobility in soil** No further relevant information available.
· **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.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

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13 Disposal considerations

· **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.
Discharged containers can contain flammable or explosive vapours.

14 Transport information

· **UN-Number**	
· **ADG, IMDG, IATA**	UN1950
· **UN proper shipping name**	
· **ADG**	1950 AEROSOLS
· **IMDG**	AEROSOLS
· **IATA**	AEROSOLS, flammable
· **Transport hazard class(es)**	
· **ADG**	
· **Class**	2 5F Gases.
· **Label**	2.1
· **IMDG, IATA**	
· **Class**	2.1 Gases.
· **Label**	2.1
· **Packing group**	
· **ADG, IMDG, IATA**	Not classified as hazardous for transport
· **Environmental hazards:**	
· **Marine pollutant:**	No
· **Special precautions for user**	Warning: Gases.
· **Hazard identification number (Kemler code):**	-
· **EMS Number:**	F-D,S-U
· **Stowage Code**	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· **Segregation Code**	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from"

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·	class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· **Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **Transport category**	2
· **Tunnel restriction code**	D
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **UN "Model Regulation":**	UN 1950 AEROSOLS, 2.1

15 Regulatory information

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

· **Australian Inventory of Industrial Chemicals**	
106-97-8	butane, pure
74-98-6	propane
75-28-5	isobutane
78-78-4	isopentane

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category** P3a FLAMMABLE AEROSOLS
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

· **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

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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.

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· ***purity requirement***
· ***Relevant phrases***
H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

· ***Department issuing SDS:*** *Abteilung Produktsicherheit*
· ***Contact:***
· ***Abbreviations and acronyms:***
Flam. Gas 1: Flammable gases – Category 1
Aerosol 1: Aerosols – Category 1
Press. Gas C: Gases under pressure – Compressed gas
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
· **** Data compared to the previous version altered.***