

SECTION 1: Identification

1.1. Product identifier

Trade name	: POTASSIUM CHROMATE
EC-No.	: 232-140-5
EC Index-No.	: 024-006-00-8
CAS-No.	: 7789-00-6
UN-No. (ADR)	: 3077
Product code	: 116095xxx
Formula	: K ₂ CrO ₄

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

Recommended uses and restrictions	: For laboratory use only
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1.3. Supplier's details

Labchem (Pty)Ltd
 6 Wakefield Road
 Founders Hill
 1609 Johannesburg - South Africa
 T +27 11 452 1116 - F +27 86 588 0293
techlab@labchem.co.za - www.labchem.co.za

1.4. Emergency telephone number

Emergency number	: +27 11 452 1116
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Acute toxicity (oral), Category 3	H301	
Skin corrosion/irritation, Category 2	H315	
Skin sensitisation, Category 1	H317	
Germ cell mutagenicity, Category 1B	H340	
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335	
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400	(M=10)
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410	
Full text of H statements : see section 16		

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS-ZA) :



GHS06

GHS08

GHS09

Signal word (GHS-ZA) : Danger

Hazard statements (GHS-ZA) :

- H301 - Toxic if swallowed.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H335 - May cause respiratory irritation.
- H340 - May cause genetic defects.
- H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS-ZA) :

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

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According to SANS 10234:2008 and SANS 11014:2010

P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : May cause genetic defects, Toxic if swallowed, May cause respiratory irritation, Causes skin irritation, May cause an allergic skin reaction, Very toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance identification codes: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
potassium chromate (Main constituent)	(CAS-No.) 7789-00-6	≥ 98	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Skin Sens. 1, H317 Muta. 1B, H340 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Doctor: administration of corticoid spray. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Wash immediately with lots of water. Do not apply (chemical) neutralizing agents without medical advice. Remove clothing before washing. Take victim to a doctor if irritation persists. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist if irritation persists. Rinse eyes with water as a precaution.

First-aid measures after ingestion : Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.html). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Doctor: gastric lavage. Rinse mouth. Call a physician immediately.

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

Symptoms/effects after inhalation : AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. FOLLOWING SYMPTOMS MAY APPEAR LATER: Risk of lung oedema. May cause respiratory irritation.

Symptoms/effects after skin contact : Tingling/irritation of the skin. Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Irritation of the eye tissue. ON CONTINUOUS EXPOSURE/CONTACT: Corrosion of the eye tissue.

Symptoms/effects after ingestion : Nausea. Vomiting. AFTER INGESTION OF HIGH QUANTITIES: Bleeding of the gastrointestinal tract. Slowing heart action. Shock. FOLLOWING SYMPTOMS MAY APPEAR LATER: Enlargement/affection of the liver. Affection of the renal tissue.

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According to SANS 10234:2008 and SANS 11014:2010

Chronic symptoms	: Slow-healing wounds. Skin rash/inflammation. Inflammation/damage of the eye tissue. Affection of the nasal septum. Change in the haemogramme/blood composition. Possible inflammation of the respiratory tract. Lung tissue affection/degeneration. Enlargement/affection of the liver. Affection of the renal tissue.
Potential adverse human health effects and symptoms	: Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). May cause respiratory irritation. Causes serious eye irritation. Caution! Substance is absorbed through the skin.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Adapt extinguishing media to the environment for surrounding fires. Water spray. Dry powder. Foam.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Non combustible. INDIRECT FIRE HAZARD: Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Face shield. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Dust cloud production: dust-tight suit.
Emergency procedures	: Mark the danger area. Prevent dust cloud formation. No naked flames. Keep containers closed. Wash contaminated clothes. In case of reactivity hazard: consider evacuation. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution. Prevent spreading in sewers. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. Collect spillage.
Methods for cleaning up	: Mechanically recover the product. Prevent dust cloud formation. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

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According to SANS 10234:2008 and SANS 11014:2010

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid raising dust. Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
- Hygiene measures : Observe very strict hygiene - avoid contact. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- Storage area : Store in a dry area. Keep container in a well-ventilated place. Keep locked up. Unauthorized persons are not admitted. Meet the legal requirements.
- Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. reducing agents. (strong) acids. organic materials.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: steel. synthetic material. MATERIAL TO AVOID: iron. copper.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

- Materials for protective clothing : GIVE EXCELLENT RESISTANCE: natural rubber. nitrile rubber. GIVE GOOD RESISTANCE: butyl rubber. PVC
- Hand protection : Gloves
- Eye protection : Face shield. In case of dust production: protective goggles
- Skin and body protection : Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing
- Respiratory protection : Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus

Personal protective equipment symbol(s):



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Crystalline solid.
- Molecular mass : 194.19 g/mol
- Colour : Yellow.
- Odour : Odourless.
- Odour threshold : No data available

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According to SANS 10234:2008 and SANS 11014:2010

pH	: 8.6 – 10 (5.0 %)
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: 968 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: Not applicable
Vapour pressure at 50 °C	: No data available
Relative vapour density at 20 °C	: Not applicable
Relative density	: 2.73 (20 °C)
Relative density of saturated gas/air mixture	: No data available
Density	: 2730 kg/m ³
Relative gas density	: No data available
Solubility	: Soluble in water. Water: 39.4 g/100ml (30 °C)
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

Minimum ignition energy	: Not applicable
SADT	: Not applicable
VOC content	: Not applicable (inorganic)
Other properties	: Basic reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with many compounds e.g.: with combustible materials, with (strong) reducers and with organic material with (increased) risk of fire/explosion. Decomposes on exposure to temperature rise: oxidation resulting in increased fire or explosion risk.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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According to SANS 10234:2008 and SANS 11014:2010

POTASSIUM CHROMATE (7789-00-6)	
LD50 oral rat	67 – 129 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	0.094 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Read-across, Inhalation (aerosol), 14 day(s))

Skin corrosion/irritation	: Causes skin irritation. pH: 8.6 – 10 (5.0 %)
Serious eye damage/irritation	: Not classified pH: 8.6 – 10 (5.0 %)
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). May cause respiratory irritation. Causes serious eye irritation. Caution! Substance is absorbed through the skin.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Dangerous for the environment. Very toxic to aquatic life with long lasting effects.
Ecology - air	: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Very toxic to crustacea. Harmful to fishes. Very toxic to fish, with long lasting effects. Very toxic to algae. Very toxic to algae, with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

POTASSIUM CHROMATE (7789-00-6)	
LC50 fish 1	58.5 mg/l (96 h, Danio rerio, Fresh water, Read-across, Lethal)
EC50 Daphnia 1	0.035 mg/l (48 h, Daphnia magna, Read-across)
EC50 72h algae (1)	0.233 mg/l (Selenastrum capricornutum, Static system, Fresh water, Read-across, Growth)

12.2. Persistence and degradability

POTASSIUM CHROMATE (7789-00-6)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

POTASSIUM CHROMATE (7789-00-6)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

POTASSIUM CHROMATE (7789-00-6)	
Mobility in soil	No additional information available
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
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According to SANS 10234:2008 and SANS 11014:2010

Product/Packaging disposal recommendations : Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized dump (Class I). Remove for physico-chemical/biological treatment.

Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
3077	3077	3077
14.2. Proper Shipping Name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Environmentally hazardous substance, solid, n.o.s.
14.3. Transport hazard class(es)		
9	9	9
		 Not applicable
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

- SANS

Transport regulations (UN) : Subject to the provisions
Special provisions (SANS) : 179, 274, 331, 335
Limited quantities (SANS) : 5 kg
Limited quantities (SANS) : 5 kg
Packagings, large packagings and IBCs : P002, IBC08, LP02
Packing instructions (SANS)
Packagings, large packagings and IBCs Special packing instructions (SANS) : PP12, B3
Portable tank and bulk containers instructions (SANS) : T1, BK2
Portable tank and bulk container special provisions (SANS) : TP33

- IMDG

Transport regulations (IMDG) : Subject to the provisions
Special provisions (IMDG) : 274, 335, 966, 967, 969
Limited quantities (IMDG) : 5 kg
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : LP02, P002
Special packing provisions (IMDG) : PP12
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B3
Tank instructions (IMDG) : BK1, BK2, BK3, T1
Tank special provisions (IMDG) : TP33
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG) : A

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According to SANS 10234:2008 and SANS 11014:2010

- IATA

Transport regulations (IATA)	: Subject to the provisions
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y956
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 956
PCA max net quantity (IATA)	: 400kg
CAO packing instructions (IATA)	: 956
CAO max net quantity (IATA)	: 400kg
Special provisions (IATA)	: A97, A158, A179, A197
ERG code (IATA)	: 9L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health, and environmental national regulations specific for the product

Regulatory reference	: SANS 10234:2008; SANS 11014:2010; SANS 10228:2012;SANS 10229:2010; SANS 10232(1,2,4), SANS 10231:2018; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996.
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SECTION 16: Other information

Issue date	: 17/02/2020
Revision date	: 17/02/2025

Full text of H-statements:

H301	Toxic if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS South Africa

The data provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The data relates to the specific product as named and is intended as a guide to the safe handling of the product in all its facets. The data may no longer be valid if the product is used in any process or in combination with other products. This SDS is not a quality specification nor any form of guarantee.