

SAFETY DATA SHEET

Formaldehyde

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Issued: 03/06/2026
Revision No: 4

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Identifier:

Trade Name: Formaldehyde solution (30 – 50% Formaldehyde, ≤10% Methanol)
REACH Registration Number: 01-2119488953-20-XXXX
CAS Number: 50-00-0
EC Number: 200-001-8

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

Identified use(s): Industrial use, professional use
Uses advised against: Anything other than the above

Details of the supplier of the safety data sheet:

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification according to Regulation (EC) No. 1272/2008 (CLP):

Acute Tox. 4 (Oral) - H302
Acute Tox. 2 (Inhalation) - H330
Skin Corr. 1B - H314
Eye Dam. 1 – H318
Skin Sens. 1A - H317
Muta. 2 - H341
Carc. 1B - H350
STOT SE 1 – H370
STOT SE 3 - H335

Full text of hazard classes, H- and EUH-statements: See section 16

Adverse physicochemical, human health and environmental effects: No additional information available.

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Label elements

According to Regulation (EC) No. 1272/2008 (CLP).

EC No.: 200-001-8



Signal word(s): Danger.

Hazard statement(s):

- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.
- H330 - Fatal if inhaled.
- H335 - May cause respiratory irritation.
- H341 - Suspected of causing genetic defects.
- H350 - May cause cancer.
- H370 - Causes damage to organs (central nervous system, optic nerve).

Precautionary statement(s):

- P260 - Do not breathe vapours.
- P280 - Wear protective gloves, protective clothing, eye protection, face protection.
- P284 - Wear respiratory protection.
- P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
- P302+P352 - IF ON SKIN: Wash with plenty of water.
- P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313 - IF exposed or concerned: Get medical advice/attention.

EUH statement(s): EUH071 Corrosive to the respiratory tract.

Contains: Formaldehyde, Methanol

Other hazards:

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1%.

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Formaldehyde 30-50% (Note B) (Note D) (Note F)	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC index No.: 605-001-00-5 REACH-no: 01-2119488953-20-XXXX	30 – 50	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 2 (Inhalation), H330 (ATE=100 ppm/4h) Skin Corr. 1B, H314 Skin Sens. 1A, H317 Muta. 2, H341 Carc. 1B, H350 EUH071
Methanol substance with a community workplace exposure limit	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC index No.: 603-001-00-X REACH-no: 01-2119433307-44-XXXX	3 - 10	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg) Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg) STOT SE 1, H370

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Formaldehyde 30-50%	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC index No.: 605-001-00-5 REACH-no: 01-2119488953-20-XXXX	(5 ≤ C ≤ 100) STOT SE 3; H335 (5 ≤ C < 25) Skin Irrit. 2; H315 (5 ≤ C < 25) Eye Irrit. 2; H319 (25 ≤ C ≤ 100) Skin Corr. 1B; H314
Methanol	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC index No.: 603-001-00-X REACH-no: 01-2119433307-44-XXXX	(3 ≤ C < 10) STOT SE 2; H371 (10 ≤ C ≤ 100) STOT SE 1; H370

Note B:

Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Note D:

Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

Note F:

This substance may contain a stabiliser. If the stabiliser changes the hazardous properties of the substance, as indicated by the classification in Part 3, classification and labelling should be provided in accordance with the rules for classification and labelling of hazardous mixtures.

The full text for all hazard statements is displayed in Section 16.

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4. FIRST AID MEASURES

Description of first aid measures:

General:	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). If exposed or concerned: Get medical advice/attention. IF ON SKIN (or hair): Get medical advice/attention.
Eye contact:	Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Ensure that folded skin of eyelids is thoroughly washed with water. Immediately call a POISON CENTRE or doctor/physician.
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTRE or doctor/physician.
Skin contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediately call a POISON CENTRE or doctor/physician.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE or doctor/physician.

Most important symptoms and effects, both acute and delayed:

Symptoms/effects after inhalation: Fatal if inhaled. Corrosive to the respiratory tract.

Symptoms/effects after skin contact: Causes severe skin burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact: Causes serious eye damage.

Symptoms/effects after ingestion: Harmful if swallowed.

Chronic symptoms: Suspected of causing genetic defects. May cause cancer. Causes damage to organs optic nerve, central nervous system.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Suitable: Use alcohol-resistant foam, carbon dioxide, dry powder or water spray.

Not suitable: None known.

Special hazards arising from the substance or mixture:

Fire hazard: Combustible liquid.

Hazardous decomposition products in case of fire: Fire may produce irritating, corrosive and/or toxic gases.

Advice for fire-fighters:

Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray to cool exposed containers. Avoid fire-fighting water entering the environment.

Protection during firefighting: As in any fire, wear self-contained breathing apparatus and full protective gear.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Protective equipment: Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". In case of inadequate ventilation, wear respiratory protection.

Emergency procedures: Do not breathe vapour. Do not get in eyes, on skin, or on clothing. Evacuate unnecessary personnel.

For emergency responders: Protective equipment: Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". In case of inadequate ventilation, wear respiratory protection.

Emergency procedures: Ventilate area. Do not breathe vapours. Do not get in eyes, on skin, or on clothing.

Environmental precautions: Notify authorities if large amounts of the product enters sewers or public waters.

Methods and material for containment and cleaning up:

For containment: Collect spillage.

Methods for cleaning up: Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal.

Reference to other sections: See section 8 for details of protective equipment.
See section 13 for details of disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe vapours. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area.

Hygiene measures: Wash hands, forearms and face thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for safe storage, including any incompatibilities:

Storage conditions: Keep only in the original container in a cool well-ventilated place. Keep container tightly closed. Store locked up.

Incompatible materials: Strong oxidising agents.

Specific end use(s): Industrial use, professional use.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

National occupational exposure and biological limit values:

Methanol (67-56-1):

EU - Indicative Occupational Exposure Limit (IOEL):

Local name:	Methanol
IOELV TWA (mg/m ³):	260 mg/m ³
IOELV TWA (ppm):	200 ppm
Notes:	Skin
Regulatory reference:	COMMISSION DIRECTIVE 2006/15/EC

Methanol (67-56-1):

Ireland - Occupational Exposure Limits:

Local name:	Methanol [Methyl alcohol]
OEL (8 hours ref) (mg/m ³)	260 mg/m ³
OEL TWA:	200 ppm
Remark:	IOELV (Indicative Occupational Exposure Limit Values), Skin (Substances which have the capacity to penetrate intact skin when they come in contact with it and be absorbed into the body. A substantial contribution to the total body burden via dermal exposure is possible)
Regulatory reference:	Chemical Agents Code of Practice 2024

Ireland - Biological limit values:

Local name:	Methanol
Ireland – BMGV:	15 mg/l Parameter: methanol - Medium: urine - Sampling time: End of shift - Notations: B (Background), Ns (Non-specific)
Regulatory reference:	Biological Monitoring Guidelines (HSA, 2011)

United Kingdom - Occupational Exposure Limits:

Local name:	Methanol
WEL TWA (mg/m ³):	266 mg/m ³
WEL TWA (ppm):	200 ppm
WEL STEL (mg/m ³)	333 mg/m ³
WEL STEL (ppm):	250 ppm
Remark (WEL):	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference:	EH40/2005 (Fourth edition, 2020). HSE

Formaldehyde 30 - 50% (50-00-0):

EU - Binding Occupational Exposure Limit (BOEL):

Local name:	Formaldehyde
BOEL TWA:	0.37 mg/m ³ 0.3 ppm
BOEL STEL:	0.74 mg/m ³ 0.6 ppm
Notes:	Dermal sensitisation (The substance can cause sensitisation of the skin)
Regulatory reference:	DIRECTIVE (EU) 2019/983 (amending Directive 2004/37/EC)

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Ireland - Occupational Exposure Limits:

Local name:	Formaldehyde
OEL (8 hours ref) (mg/m ³):	0.37 mg/m ³
OEL TWA:	0.3 ppm
OEL (15 min ref) (mg/m ³):	0.738 mg/m ³
OEL STEL:	0.6 ppm

Formaldehyde 30 - 50% (50-00-0):

Remark: BOELV (Binding Occupational Exposure Limit Values), Carc.1B (Substances presumed to have carcinogenic potential for humans), Sens (In the workplace, respiratory or dermal exposures to sensitising agents may occur. Sensitisers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The "sens" notation alone does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitisers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE)).

Regulatory reference: Chemical Agents Code of Practice 2024.

United Kingdom - Occupational Exposure Limits:

Local name:	Formaldehyde
WEL TWA:	2.5 mg/m ³
WEL TWA (ppm):	2 ppm
WEL STEL:	2.5 mg/m ³
WEL STEL (ppm):	2 ppm

DNEL and PNEC:

Methanol (67-56-1):

DNEL/DMEL (Workers):

Acute - systemic effects, dermal: 40 mg/kg/d
Acute - systemic effects, inhalation: 260 mg/m³
Acute - local effects, inhalation: 260 mg/m³
Long-term - systemic effects, dermal: 40 mg/kg/d
Long-term - systemic effects, inhalation: 260 mg/m³
Long-term - local effects, inhalation: 260 mg/m³

PNEC (Water):

PNEC aqua (freshwater):	20.8 mg/l
PNEC aqua (marine water):	20.8 mg/l

PNEC (Sediment):

PNEC sediment (freshwater):	77 mg/kg
PNEC sediment (marine water):	7.7 mg/kg

PNEC (Soil):

PNEC soil:	0.00318 mg/kg
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PNEC (STP):

PNEC sewage treatment plan:	100 mg/l
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PNEC (additional information):

Water:	1540 mg/l
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Formaldehyde 30-50% (50-00-0):

DNEL.DMEL (Workers):

Acute - systemic effects, inhalation: 1 mg/m³

Acute - local effects, inhalation: 0.75 mg/m³

Long-term - systemic effects, dermal: 240 mg/kg/d

Long-term - local effects, dermal: 0.037 mg/cm²

Long-term - systemic effects, inhalation: 0.5 mg/m³

Long-term - local effects, inhalation: 0.5 mg/m³

PNEC (Water):

PNEC aqua (freshwater): 0.47 mg/l

PNEC aqua (marine water): 0.47 mg/l

PNEC (Sediment):

PNEC sediment (freshwater): 2.44 mg/l

PNEC sediment (marine water): 2.44 mg/l

PNEC (Soil):

PNEC soil: 0.21 mg/kg

PNEC (STP):

PNEC sewage treatment plan: 0.19 mg/l

PNEC (additional information):

Water: 4.7 mg/l

Exposure controls:

Appropriate engineering controls: Ensure adequate ventilation. Local exhaust ventilation (LEV) may be required to control inhalation exposure. Emergency eye wash stations and safety showers should be available in the immediate vicinity of any potential exposure.

Eye/face protection: Wear tight-fitting, chemical splash goggles or face shield. Standard EN 16321 - Personal eye-protection.

Hand protection: Wear protective gloves. Standard EN 374 - Protective gloves against chemicals. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough.

Type	Material	Permeation	Thickness (mm)
Protective gloves	Nitrile rubber (NBR)	6 (>480 mins)	0.4
Protective gloves	Butyl rubber	6 (>480 mins)	0.7

Skin protection: Long sleeved protective clothing.

Respiratory protection: Wear suitable respiratory equipment. Standard EN 14387 - Gas filter(s), combined filter(s) and full-face mask - EN 136. Filter type: B. Observe occupational exposure limits and minimise the risk of exposure.

Environmental exposure controls: Avoid release to the environment.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:	Liquid
Colour:	Colourless
Odour:	Formaldehyde
Odour threshold:	Not determined
pH (concentrated solution):	$\geq 2 - 5 \leq$
Melting point:	Not available
Boiling point/range:	Not available
Freezing point:	Not available
Flashpoint:	63 - 75°C
Flammability (solid, gas):	Not available
Upper/lower flammability or explosive limits:	Not available
Vapour pressure:	Not available
Relative density:	Not available
Relative vapour density:	Not available
Density:	Not available
Solubility:	Not available
Partition coefficient (log Kow)	Not available
Auto-ignition temperature:	395°C
Decomposition temperature:	Not available
Viscosity, kinematic:	Not available
Particle characteristics:	Not applicable
Other information:	No further information available.

10. STABILITY AND REACTIVITY

Reactivity: Reacts in contact with: Strong oxidising agents.

Chemical stability: Stable at ambient temperature and under normal conditions of use.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: Heat.

Incompatible materials: Strong oxidising agents.

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

[cont...]

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity (oral): Harmful if swallowed.

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Fatal if inhaled.

Methanol (67-56-1):

LD50 oral, rat: 1187 mg/kg

LD50 dermal, rabbit: 17100 mg/kg

LC50 inhalation, rat (mg/l): 43700 mg/m³ air

Additional information: Methanol is known to be significantly more toxic to humans than to laboratory animals.

Formaldehyde 30-50% (50-00-0):

LD50 oral, rat: 640 mg/kg bodyweight (OECD 401 method)

LC50 inhalation, rat (ppm): < 463 ppm/4h (OECD 403 method)

Skin corrosion/irritation: Causes severe skin burns.

pH: ≥ 2 – ≤ 5

Serious eye damage/irritation: Causes serious eye damage.

pH: ≥ 2 – ≤ 5

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: Suspected of causing genetic defects.

Carcinogenicity: May cause cancer.

Reproductive toxicity: Not classified

STOT-single exposure: Causes damage to organs (central nervous system, optic nerve). May cause respiratory irritation.

Methanol (67-56-1):

STOT-single exposure: Causes damage to organs (optic nerve, central nervous system).

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

Information on other hazards:

Endocrine disrupting properties: Adverse health effects caused by endocrine disrupting properties: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1%.

Other information:

Potential adverse human health effects and symptoms: Fatal if inhaled, corrosive to the respiratory tract, causes severe skin burns, causes serious eye damage, suspected of causing genetic defects, may cause cancer, causes damage to organs optic nerve, central nervous system, harmful if swallowed.

[cont...]

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12. ECOLOGICAL INFORMATION

Toxicity:

Hazardous to the aquatic environment, short-term (acute): Not classified

Hazardous to the aquatic environment, long-term (chronic): Not classified

Methanol (67-56-1):

LC50 fish: 15400 mg/l - 96 Hours (Lepomis macrochirus)

EC50 Daphnia: 18260 mg/l - 48 Hours (Daphnia magna)

ErC50 algae: ≈ 22000 mg/l - 96 Hours (Pseudokirchneriella subcapitata)

Formaldehyde 30 - 50% (50-00-0):

LC50 fish: 24.1 mg/l - 96 Hours (Pimephales promelas), (freshwater)

LC50 fish 2: 6.7 mg/l - 96 Hours (Morone saxtalis), (marine water)

EC50 Daphnia: 5.8 mg/l - 48 Hours (Daphnia pulex), (freshwater)

EC50 – Crustacea [2]: 5.3 mg/l - 96 Hours, (marine water)

EC50 72h – Algae [1]: 4.89 mg/l - 72 Hours (Desmodesmus subspicatus)

NOEC chronic crustacea: 6.9 mg/l - 144 Hours (Daphnia magna)

Persistence and degradability: Readily biodegradable.

Bio accumulative potential:

Partition coefficient: Formaldehyde log Kow: 0.35 Methanol log Pow: -0.77 (20°C)

Mobility in soil: The test item will remain mainly in the water phase, no adsorption to the solid soil phase or volatilisation into the atmosphere is expected.

Results of PBT and vPvB assessment: No additional information available.

Endocrine disrupting properties: Adverse effects on the environment caused by endocrine disrupting properties: The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other adverse effects: No further relevant information.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Regional waste regulation: Disposal must be done according to official regulations.

Waste disposal recommendations: Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials: Avoid release to the environment.

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14. TRANSPORT INFORMATION

UN Number: 2209

Proper Shipping Name: FORMALDEHYDE SOLUTION

Transport Hazard Class: 8

ADR/RID classification code: C9

Transport labels:



Packing Group: II

Environmental Hazards:

Environmentally hazardous substance/marine pollutant: No

Special precautions for users:

EmS: F-A, S-B

ADR transport category: 3

Emergency Action Code: •2X

Hazard Identification Number ADR/RID: 80

Tunnel code: (E)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No further information.

15. REGULATORY INFORMATION

Chemical safety assessment: No additional information available.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.