

according to Regulation (EC) No 1907/2006

# Sodium dichromate dihydrate for analysis, ACS

Revision date: 11.09.2023

Product code: 22672

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

## 1.1. Product identifier

Sodium dichromate dihydrate for analysis, ACS

REACH Registration Number:	01-2119435525-40-XXXX
CAS No:	7789-12-0
Index No:	024-004-01-4
EC No:	234-190-3

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

# Use of the substance/mixture

Laboratory chemicals Industrial uses: Uses of substances as such or in preparations at industrial sites Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

### Uses advised against

Do not use for private purposes (household).

1.3. Details of the supp	lier of the safe	ty	da	ta	sł	<u>neet</u>	

Company name:	AnalytiChem GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone:0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	
1.4. Emergency telephone	For Hazardous Materials [or Danger	ous Goods] Incidents Spill, Leak, Fire,
number:	•	REC Day or Night Within USA and Canada: Canada: +1 703-741-5970 (collect calls

### **Further Information**

No data available

#### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

## Regulation (EC) No 1272/2008

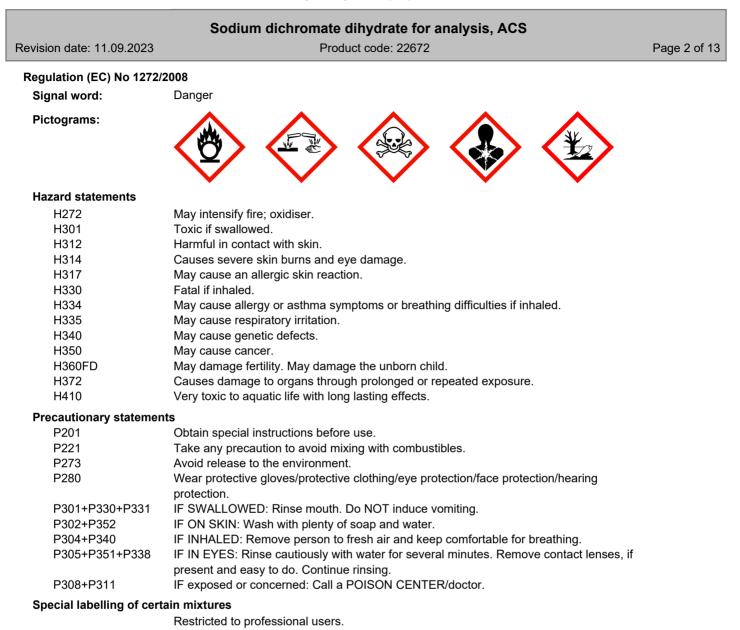
Ox. Sol. 2; H272 Carc. 1B; H350 Muta. 1B; H340 Repr. 1B; H360FD Acute Tox. 2; H330 Acute Tox. 3; H301 Acute Tox. 4; H312 Skin Corr. 1B; H314 Resp. Sens. 1; H314 Skin Sens. 1; H374 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

# 2.2. Label elements



according to Regulation (EC) No 1907/2006



### 2.3. Other hazards

No data available

# **SECTION 3: Composition/information on ingredients**

## 3.1. Substances

Sum formula:	Na2Cr2O7 * 2 H2O
Molecular weight:	298,00 g/mol



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#### Hazardous components

CAS No	Chemical name	Chemical name				
	EC No					
	Classification (Regulation (EC) No 1272/2008)					
7789-12-0	sodium dichromate, dihydrate					
	234-190-3 024-004-01-4 01-2119435525-40-XXXX					
	Ox. Sol. 2, Carc. 1B, Muta. 1B, Repr. 1B, Acute Tox. 2, Acute Tox. 3, Acute Tox. 4, Skin Corr. 1B, Resp. Sens. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H272 H350 H340 H360FD H330 H301 H312 H314 H334 H317 H372 H400 H410					

Full text of H and EUH statements: see section 16.

### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity			
	Specific Conc. Limits, M-factors and ATE					
7789-12-0	234-190-3	sodium dichromate, dihydrate	100 %			
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 129,5 mg/kg Resp. Sens. 1; H334: >= 0,2 - 100 Skin Sens. 1; H317: >= 0,2 - 100 STOT SE 3; H335: >= 5 - 100					

#### **Further Information**

This substance has been listed as SVHC (substance of very high concern) in the Candidate List according to Article 59 of REACH.

This substance is identifed as SVHC (substance of very high concern) and is subject to autorisation according to Annex XIV of REACH.

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

### **General information**

Self-protection of the first aider

#### After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

#### After contact with skin

Wash immediately with: Water Take off immediately all contaminated clothing and wash it before reuse. Call a physician immediately.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Protect uninjured eye.

### After ingestion

Rinse mouth immediately and drink plenty of water. Water, to which activated charcoal may be added Call a physician immediately.

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

corrosive Irritant Cough Dyspnoea Allergic reactions



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Risk of serious damage to eyes. Gastrointestinal complaints Pneumonia Spasms Circulatory collapse Unconsciousness Methaemoglobin formation Liver and kidney damage Vomiting

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

Antidotes: EDTA, DMPS (Demaval®)

### **SECTION 5: Firefighting measures**

# 5.1. Extinguishing media

### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

# Unsuitable extinguishing media

no restriction

### 5.2. Special hazards arising from the substance or mixture

Non-combustible solids Oxidising properties Hazardous combustion products In case of fire may be liberated: Metal oxide smoke, toxic

### 5.3. Advice for firefighters

Avoid contact with skin, eyes and clothes. In case of fire: Wear self-contained breathing apparatus.

### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## **SECTION 6:** Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Remove persons to safety. Emergency procedures Do not breathe dust/fume/gas/mist/vapours/spray.

# For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

# For containment

### Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Take up carefully when dry. Take up dust-free and set down dust-free.

# For cleaning up

Clean contaminated articles and floor according to the environmental legislation.





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### Other information

Provide adequate ventilation. Do not breathe dust/fume/gas/mist/vapours/spray. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

## 6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

### Advice on safe handling

Avoid exposure - obtain special instructions before use. Read label before use. Handle and open container with care. Avoid dust formation. Do not breathe dust. When using do not eat, drink, smoke, sniff. Keep container tightly closed. Use personal protection equipment. Use extractor hood (laboratory). Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

### Advice on protection against fire and explosion

Material, oxygen-rich, Oxidising

#### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Make available sufficient washing facilities Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

#### Further information on handling

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. Take off immediately all contaminated clothing and wash it before reuse. If handled uncovered, arrangements with local exhaust ventilation have to be used.

### 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Store in a well-ventilated place. Keep container tightly closed. Store in a place accessible by authorized persons only.

#### Hints on joint storage

Keep away from combustible material.

### Further information on storage conditions

Store in a dry place. storage temperature: +5°C - +30°C

### 7.3. Specific end use(s)

Laboratory chemicals

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters



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## **DNEL/DMEL** values

CAS No	Substance							
DNEL type		Exposure route	Effect	Value				
7789-12-0	sodium dichromate, dihydrate							
Worker DNEL,	long-term	inhalation	systemic	0,03 mg/m³				
Worker DNEL, long-term		dermal	systemic	0,027 mg/kg bw/day				
Consumer DNE	EL, long-term	inhalation	systemic	0,007 mg/m³				
Consumer DNE	EL, long-term	dermal	systemic	0,013 mg/kg bw/day				

### **PNEC** values

CAS No	Substance					
Environmental compartment Value						
7789-12-0 sodium dichromate, dihydrate						
Freshwater 0,005 mg/l						
Freshwater sediment 0,15 mg/kg						
Secondary po	17000000 mg/kg					
Micro-organis	0,21 mg/l					
Soil	Soil					

### 8.2. Exposure controls

### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Avoid dust formation. Do not breathe dust.

## Individual protection measures, such as personal protective equipment

Eye/face protection goggles Wear eye/face protection.

wear eye/race protection

# Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L Thickness of the glove material: NBR (Nitrile rubber) 0,11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact Recommended glove articles: KCL 741 Dermatril® L Thickness of the glove material: NBR (Nitrile rubber) 0,11 mm Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).



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### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing. Wash hands before breaks and after work.

#### **Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Filtering device with filter or ventilator filtering device of type: Filter B-(P3)

### **Environmental exposure controls**

Do not allow to enter into surface water or drains.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state:	solid	
Colour:	orange	
Odour:	odourless	
Odour threshold:	No data available	
Melting point/freezing point:		356,7 °C
Boiling point or initial boiling point and		400 °C
boiling range:		
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		not applicable
Auto-ignition temperature:		No data available
Decomposition temperature:		400 °C
pH-Value (at 20 °C):		3,5 (100 g/l)
Viscosity / kinematic:		No data available
Water solubility:		731,8 g/L
(at 20 °C)		-
Solubility in other solvents		
No data available		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available
Dispersion stability:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density (at 20 °C):		2,35 g/cm <sup>3</sup>
Relative density:		No data available
Bulk density:		1200 kg/m <sup>3</sup>
Relative vapour density:		No data available
9.2. Other information		
Information with regard to physical haz	ard classes	
Explosive properties		
No data available		
Sustaining combustion:		No data available
Self-ignition temperature		
Solid:		No data available
Gas:		No data available
Oxidizing properties		
May intensify fire; oxidiser.		
Other safety characteristics		



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Evaporation rate:	No data available					
Solvent separation test:	No data available					
Solvent content:	No data available					
Solid content:	100%					
Sublimation point:	No data available					
Softening point:	No data available					
Pour point:	No data available					
No data available:						
Viscosity / dynamic:	No data available					
Flow time:	No data available					
Further Information						

No data available

### **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Material, oxygen-rich, Oxidising

## 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Alcohols Combustible substance Hydrazine boron Metal powder Acetic anhydride sulphuric acid Iron. Reducing agent Hydrochloric acid

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

No data available

### 10.6. Hazardous decomposition products

In case of fire may be liberated:

**SECTION 5: Firefighting measures** 

### **Further information**

No data available

## **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

### Toxicocinetics, metabolism and distribution

No data available

# Acute toxicity

Fatal if inhaled. Toxic if swallowed. Harmful in contact with skin. Avoid exposure - obtain special instructions before use. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).



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CAS No	Chemical name									
	Exposure route Dose Species Source Method									
7789-12-0	sodium dichromate, dih	sodium dichromate, dihydrate								
	oral	LD50 mg/kg	129,5	Rat	Study report (1983)	OECD Guideline 401				
	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (1983)	OECD Guideline 402				
	inhalation vapour	ATE	0,5 mg/l							
	inhalation dust/mist	ATE	0,05 mg/l							

#### Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Risk of serious damage to eyes.

Conjunctival oedema (chemosis).

### Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (sodium dichromate, dihydrate) May cause an allergic skin reaction. (sodium dichromate, dihydrate)

### Carcinogenic/mutagenic/toxic effects for reproduction

May cause genetic defects. (sodium dichromate, dihydrate)

May cause cancer. (sodium dichromate, dihydrate)

May damage fertility. May damage the unborn child. (sodium dichromate, dihydrate)

### STOT-single exposure

May cause respiratory irritation. (sodium dichromate, dihydrate)

#### STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. (sodium dichromate, dihydrate)

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Information on likely routes of exposure

No data available

### Specific effects in experiment on an animal

No data available

### Additional information on tests

No data available

### Practical experience No data available

# 11.2. Information on other hazards

# Endocrine disrupting properties

No data available

#### Other information No data available

### Further information

corrosive Irritant Cough Dyspnoea Allergic reactions Risk of serious damage to eyes. Gastrointestinal complaints Pneumonia



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Spasms Circulatory collapse Unconsciousness Methaemoglobin formation Liver and kidney damage Vomiting

# **SECTION 12: Ecological information**

### 12.1. Toxicity

CAS No	Chemical name									
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method			
7789-12-0	sodium dichromate, dihydrate									
	Acute fish toxicity	LC50 mg/l	13 - 100	96 h	Range of species tested	3rd Priority List; Volume 53 (2005)	OECD Guideline 203			
	Fish toxicity	NOEC mg/l	0,923	30 d	Range of species used	European Commission – Joint Research Cen	Several studies reported, collectively,			
	Crustacea toxicity	NOEC mg/l	0,0084	7 d	range of species tested	European Commission – Joint Research Cen	Several studies, collectively, provide a			
	Acute bacteria toxicity	(EC50 mg/l)	0,11	3 h	Range of microbes reported	European Commission – Joint Research Cen	Several studies reported with different			

# 12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

# 12.3. Bioaccumulative potential

No data available

## 12.4. Mobility in soil

No data available

# 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

# 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

# 12.7. Other adverse effects

Discharge into the environment must be avoided.

### **Further information**

Do not allow to enter into surface water or drains.

## **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

### **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Send to a physico-chemical treatment facility under observation of official regulations. Do not allow to enter into surface water or drains. Do not mix with other wastes.

### Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific



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to the industry and process.

Handle contaminated packages in the same way as the substance itself.

# **SECTION 14: Transport information**

Land transport (ADR/RID)	
14.1. UN number or ID number:	UN 3087
14.2. UN proper shipping name:	OXIDIZING SOLID, TOXIC, N.O.S. (sodium dichromate, dihydrate)
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	
Hazard label:	5.1+6.1
Classification code:	OT2
Special Provisions:	274
Limited quantity:	1 kg
Excepted quantity:	E2
Transport category:	2
Hazard No:	56
Tunnel restriction code:	E
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 3087
14.2. UN proper shipping name:	OXIDIZING SOLID, TOXIC, N.O.S. (sodium dichromate, dihydrate)
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	II
Hazard label:	5.1+6.1
Classification code:	OT2
Special Provisions:	274 802
Limited quantity:	1 kg
Excepted quantity:	E2
Marine transport (IMDG)	
<u>14.1. UN number or ID number:</u>	UN 3087
14.2. UN proper shipping name:	OXIDIZING SOLID, TOXIC, N.O.S. (sodium dichromate, dihydrate)
<u>14.3. Transport hazard class(es):</u>	5.1
14.4. Packing group:	ll
Hazard label:	5.1+6.1
Special Provisions:	274, 900
Limited quantity:	1 kg
Excepted quantity:	E2
EmS:	F-A, S-Q
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	
14.2. UN proper shipping name:	OXIDIZING SOLID, TOXIC, N.O.S. (sodium dichromate, dihydrate)
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	
Hazard label:	5.1+6.1
Special Provisions:	A3
Limited quantity Passenger:	1 kg
Passenger LQ:	Y543
Excepted quantity:	E2
IATA-packing instructions - Passenger:	558
IATA-max. quantity - Passenger:	5 kg
IATA-packing instructions - Cargo:	562 25 kg
IATA-max. quantity - Cargo:	25 kg
14.5. Environmental hazards	

# 14.5. Environmental hazards



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ENVIRONMENTALLY HAZARDOUS:	Yes			
Danger releasing substance:	sodium dichromate, dihydrate			
SECTION 15: Regulatory information				
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture				
<b>EU regulatory information</b> Authorisations (REACH, annex XIV): sodium dichromate, dihydrate				
Restrictions on use (REACH, annex XVII): Entry 75				
Information according to 2012/18/EU (SEVESO III):	H2 ACUTE TOXIC			
Additional information:	E1			
Additional information SVHC substance.				
National regulatory information				
Employment restrictions:	Observe restrictions to employment for juveniles according to the work protection guideline' (94/33/EC). Observe employment rest under the Maternity Protection Directive (92/85/EEC) for expecta nursing mothers. Observe employment restrictions for women of child-bearing age.	trictions ant or		
Water hazard class (D):	3 - highly hazardous to water			
15.2. Chemical safety assessment				

For this substance a chemical safety assessment has not been carried out.

# **SECTION 16: Other information**

### Changes

This data sheet contains changes from the previous version in section(s): 12.

# Abbreviations and acronyms

Ox. Sol: Oxidising solid Acute Tox: Acute toxicity Skin Corr: Skin corrosion Eye Dam: Eye damage Resp. Sens: Respiratory sensitisation Skin Sens: Skin sensitisation Muta: Germ cell mutagenicity Carc: Carcinogenicity Repr: Reproductive toxicity STOT SE: Specific target organ toxicity - single exposure STOT RE: Specific target organ toxicity - repeated exposure Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard

### Relevant H and EUH statements (number and full text)

H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.



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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.			
H335	May cause respiratory irritation.			
H340	May cause genetic defects.			
H350	May cause cancer.			
H360FD	May damage fertility. May damage the unborn child.			
H372	Causes damage to organs through prolonged or repeated exposure.			
H400	Very toxic to aquatic life.			
H410	Very toxic to aquatic life with long lasting effects.			

## **Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.