according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9 Revision Date 21.11.2023

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

1.1. Product identifier

Product name : HYDRANAL™ CRM Water Standard 1.0

SDS-number : 000000020622

Type of product : Mixture

Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.

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

Use of the : Laboratory chemicals

Substance/Mixture

Uses advised against : none

1.3. Details of the supplier of the safety data sheet

Company : Honeywell International Inc. Honeywell International, Inc.

115 Tabor Road 115 Tabor Road

07950-2546 Morris Plains Morris Plains, NJ 07950-2546

USA USA

Telephone

For further information, : SafetyDataSl

please contact:

SafetyDataSheet@Honeywell.com

1.4. Emergency telephone number

Emergency telephone : +1-703-527-3887 (ChemTrec-Transport)

number +1-303-389-1414 (Medical)

Poison Control Center:

United Kingdom: (+44) 844 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Page 1 / 17

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Flammable liquids Category 3 H226 Flammable liquid and vapour.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

Precautionary statements : P280 Wear protective gloves/ eye protection/

face protection.

Hazardous components which must be listed on the

label

: Anisole

2.3. Other hazards

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
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according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Anisole	100-66-3 202-876-1	Flam. Liq. 3; H226	>= 90 % - < 100 %	
propylene carbonate	108-32-7 607-194-00-1 203-572-1	Eye Irrit. 2; H319	< 10 %	

Remaining components of this product are non-hazardous and/or are present at concentrations below reportable limits.

Occupational Exposure Limit(s), if available, are listed in Section 8. For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:

Remove to fresh air. Keep patient warm and at rest. Call a physician immediately.

Skin contact:

Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Eye contact:

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Protect unharmed eye.

Ingestion:

When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

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

No data available

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray Foam

Carbon dioxide (CO2)

Dry powder

Extinguishing media which shall not be used for safety reasons: High volume water jet

5.2. Special hazards arising from the substance or mixture

Fire may cause evolution of:

Carbon oxides

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Remove all sources of ignition. Ensure adequate ventilation.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and materials for containment and cleaning up

Page 4 / 17

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Soak up with inert absorbent material. Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Exhaust ventilation at the object is necessary.

Advice on protection against fire and explosion:

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Vapours may form explosive mixtures with air.

Hygiene measures:

Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Keep only in the original container, tightly closed, in a well ventilated place. Store at room temperature. (Ambient temperature: $> 0 < 35^{\circ}$ C) Protect from atmospheric moisture and water.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

DNEL/ PNEC-Values

Component	End- use/impact	Exposure duration	Value	Exposure routes	Remarks
Anisole	Workers / Long-term systemic effects		20 mg/m3	Inhalation	
propylene carbonate	Workers / Long-term systemic effects		70,53 mg/m3	Inhalation	
propylene carbonate	Workers / Long-term local effects		20 mg/m3	Inhalation	
propylene carbonate	Workers / Long-term systemic effects		20mg/kg bw/d	Skin contact	
propylene carbonate	Consumers / Long-term systemic effects		17,4 mg/m3	Inhalation	
propylene carbonate	Consumers / Long-term local effects		10 mg/m3	Inhalation	
propylene carbonate	Consumers / Long-term systemic effects		10mg/kg bw/d	Skin contact	
propylene carbonate	Consumers / Long-term systemic effects		10mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
Anisole	Fresh water: 0,027 mg/l	
Anisole	Marine water: 0,0027 mg/l	
Anisole	Sewage treatment plant: 30 mg/l	

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Anisole	Fresh water sediment: 0,745 mg/kg dw	
Anisole	Marine sediment: 0,074 mg/kg dw	
Anisole	Soil: 0,133 mg/kg dw	
propylene carbonate	Fresh water: 0,9 mg/l	Assessment factor: 1000
propylene carbonate	Marine water: 0,09 mg/l	Assessment factor: 10000
propylene carbonate	Sewage treatment plant: 7400 mg/l	
propylene carbonate	Soil: 0,81 mg/kg dw	

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Personal protective equipment

Respiratory protection:
Recommended Filter type:

Short term: filter apparatus, Filter A

In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection:

Glove material: Viton®

Break through time: > 480 min Glove thickness: 0,7 mm

Vitoject® 890

Gloves must be inspected prior to use.

Replace when worn.

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9 Revision Date 21.11.2023

Remarks: Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types . Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection: Safety goggles

Skin and body protection:

Protective suit

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Physical state : liquid

(b) Colour : colourless

(c) Odour : aromatic

(d) Melting point/freezing : -37 °C

point Anisole

(e) Boiling point/boiling : 153 - 155 °C

range at 1.013 hPa Anisole

(f) Flammability : Not applicable

Page 8 / 17

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9 Revision Date 21.11.2023

(g) Lower and upper

explosion limit

: Lower explosion limit

No data available

: Upper explosion limit

No data available

(h) Flash point : 43 °C

Method: closed cup

(i) Auto-ignition

temperature

: 475 °C

Anisole

(j) Decomposition

temperature

: No decomposition if used as directed.

(k) pH : No data available

(I) Viscosity, kinematic : No data available

(m) Solubility(ies) : Water solubility:

insoluble

(n) Partition coefficient: n-

octanol/water

: log Pow 2,11

Medium: Anisole

(o) Vapour pressure : 4,7 hPa

at 25 °C Anisole

(p) Density and / or relative :

density

1,000 g/cm3

at 20 °C

(q) Relative vapour density : No data available

(r) Particle characteristics : No data available

9.2 Other Information

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Page 9 / 17

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9 Revision Date 21.11.2023

Evaporation rate : No data available

Viscosity, dynamic : 0,99 mPa.s

at 25 °C Anisole

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4. Conditions to avoid

Keep away from sources of ignition - No smoking.

10.5. Incompatible materials

Strong oxidizing agents
Strong acids and strong bases

10.6. Hazardous decomposition products

Carbon oxides

SECTION 11: Toxicological information

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

(a) Acute toxicity

Acute oral toxicity: Acute toxicity estimate Value: 3.854 mg/kg

Page 10 / 17

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Method: Calculation method

Acute dermal toxicity:

LD50

Species: Rabbit Value: > 5.000 mg/kg Test substance: Anisole

Acute inhalation toxicity:

LC50

Species: Rat Value: > 6,51 mg/l Exposure time: 4 h Test substance: Anisole

Acute toxicity (other routes of administration):

No data available

(b) Skin corrosion/irritation:

Species: Rabbit

Result: Mild skin irritation Test substance: Anisole

(c) Serious eye damage/eye irritation:

Result: mild transient effects Test substance: Anisole

(d) Respiratory or skin sensitisation:

No data available

(e) Germ cell mutagenicity:

Note: No data available

(f) Carcinogenicity:

Note: No data available

(g) Reproductive toxicity:

Remarks: No data available (h) STOT-single exposure:

No data available

(i) STOT - repeated exposure:

Species: Rat

Page 11 / 17

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Application Route: Inhalation (nose only)

NOAEL 3.000 mg/kg Test substance: Anisole

Method: OECD Test Guideline 412

(j) Aspiration hazard:

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information: No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish: No data available

Toxicity to aquatic plants:

EC50 Biomass

Species: Pseudokirchneriella subcapitata (green algae)

Value: 30 mg/l Exposure time: 72 h

Method: OECD Test Guideline 201

Test substance: Anisole

EC50 Growth rate

Species: Pseudokirchneriella subcapitata (green algae)

Value: 47 mg/l Exposure time: 72 h

Method: OECD Test Guideline 201

Test substance: Anisole

Toxicity to aquatic invertebrates:

EC50

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Immobilization

Species: Daphnia magna (Water flea)

Value: 27 mg/l Exposure time: 48 h

Method: OECD Test Guideline 202

Test substance: Anisole

12.2. Persistence and degradability

Biodegradability:

Result: Readily biodegradable Test substance: Anisole

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

Should not be released into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Page 13 / 17

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Provisions relating to waste:

EC Directive 2006/12/EC; 2008/98/EEC

Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID:2222 IMDG:2222 IATA:2222

14.2 UN proper shipping name

ADR/RID:ANISOLE SOLUTION IMDG:ANISOLE SOLUTION IATA:Anisole solution

14.3 Transport hazard class(es)

ADR/RID:3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID:III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID:no Marine pollutant: no

14.6 Special precautions for user

IMDG Code segregation group according chapter 3.1.4.4: NONE,

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC Listed in Regulation : P5c: FLAMMABLE LIQUIDS	Quantity: 5.000.000 kg Quantity: 50.000.000 kg	
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

	Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).
Regulation (EC) No. 1907/2006, Annex XIV	Not applicable
Regulation (EC) No. 1907/2006, Annex XVII	Not applicable

VOC:

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control), 100 %

Other inventory information

US. Toxic Substances Control Act On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS) On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC) On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand On the inventory, or in compliance with the inventory

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Anisole : H226 Flammable liquid and vapour.

propylene carbonate : H319 Causes serious eye irritation.

Further information

All directives and regulations refer to amended versions.

Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community

CAS Chemical Abstracts Service

DNEL Derived no effect level

PNEC Predicted no effect level

vPvB Very persistent and very biaccumulative substance

PBT Persistent, bioaccmulative und toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

according to Regulation (EC) No. 1907/2006, as amended



HYDRANAL™ CRM Water Standard 1.0

34426-40ML

Version 1.9

Revision Date 21.11.2023