# HYDRANAL™ NEXTGEN Solvent E-FI

34431-6X1L

Version 1.6 Revision Date 09.04.2026

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

### 1.1. Product identifier

| | | |
|---|---|---|
| Product name | : | HYDRANAL™ NEXTGEN Solvent E-FI |
| SDS-number | : | 000000024802 |
| 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 Substance/Mixture | : | Laboratory chemicals |
| Uses advised against | : | none |

### 1.3. Details of the supplier of the safety data sheet

| | | | |
|---|---|---|---|
| Company | : | Honeywell Specialty Chemicals Seelze GmbH<br>Wunstorfer Straße 40<br>30926 Seelze<br>Germany | Solstice Advanced Materials US, Inc.<br>115 Tabor Road<br>Morris Plains, NJ 07950-2546<br>USA |
| Telephone | : | (49) 5137-999 0 | |
| For further information, please contact: | : | SafetyDataSheet@solstice.com | |

### 1.4. Emergency telephone number

| | | |
|---|---|---|
| Emergency telephone number | : | +1-703-527-3887 (ChemTrec-Transport)<br>+1 303-739-1378 (Medical) |
| | : | United Kingdom: (+44) 844 892 0111 |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**REGULATION (EC) No 1272/2008**

Flammable liquids Category 2

H225 Highly flammable liquid and vapour.
Skin irritation Category 2
H315 Causes skin irritation.
Serious eye damage Category 1
H318 Causes serious eye damage.

### 2.2. Label elements

**REGULATION (EC) No 1272/2008**

| | | | |
|---|---|---|---|
| Hazard pictograms | : |  | |
| Signal word | : | Danger | |
| Hazard statements | : | H225 | Highly flammable liquid and vapour. |
| | | H315 | Causes skin irritation. |
| | | H318 | Causes serious eye damage. |
| Precautionary statements | : | P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| | | P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| | | P302 + P352 | IF ON SKIN: Wash with plenty of water. |
| | | 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. |
| Hazardous components which must be listed on the label | : | sulfur dioxide<br>ethyl alcohol<br>2-Ethylimidazole | |

### 2.3. Other hazards

None known. 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. 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. Product does not contain substances that are persistent, mobile, and toxic (PMT/vPvM) 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.<br>Index-No.<br>EC-No. | Classification 1272/2008 | Concentration | Remarks |
|---|---|---|---|---|
| ethyl alcohol | 64-17-5<br>603-002-00-5<br>200-578-6 | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319 | >= 55 % - <= 80 % | Eye Irrit. 2; H319:>= 50 % |
| 2-Ethylimidazole | 1072-62-4<br>214-011-5 | Acute Tox. 4; H302; Oral<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318 | >= 15 % - <= 25 % | |
| sulfur dioxide | 7446-09-5<br>016-011-00-9<br>231-195-2 | Press. Gas Liquefied gas; H280<br>Acute Tox. 3; H331; Inhalation<br>Skin Corr. 1B; H314<br>STOT SE 1; H370; Inhalation;<br>Respiratory system | >= 5 % - <= 15 % | ATE(inhalative gas): 1000 ppm |
| L-Proline | 147-85-3<br>205-702-2 | | >= 0,1 % - <= 1 % | N.C.* |
| 2-Ethyl imidazole hydroiodide | | | >= 0,1 % - <= 1 % | N.C.* |

N.C.* - Non-hazardous substance - for information only

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

### 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

Nitrogen oxides (NOx)
Sulphur oxides
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. 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

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:*
Avoid exposure - obtain special instructions before use. Exhaust ventilation at the object is necessary.

*Advice on protection against fire and explosion:*
Keep away from sources of ignition - No smoking. The heavy vapours can overcome a considerable distance up to the source of ignition. Take measures to prevent the build up of electrostatic charge. Normal measures for preventive fire protection.

*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°C) Protect from atmospheric moisture and water.

*Advice on common storage:*
Oxidizing agents

### 7.3. Specific end use(s)

no additional data available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

***Occupational exposure limits:***

| Components | Basis / Value type | Value / Form of exposure | Exceeding Factor | Remarks |
|---|---|---|---|---|
| ethyl alcohol | EH40 WEL TWA | 1.920 mg/m3 1.000 ppm | | |
| sulfur dioxide | EH40 WEL STEL | 2,7 mg/m3 1 ppm | 15 minutes | |
| sulfur dioxide | EH40 WEL TWA | 1,3 mg/m3 0,5 ppm | | |
| sulfur dioxide | EU SCOELS TWA | 1,3 mg/m3 0,5 ppm | 8 hours | |
| sulfur dioxide | EU SCOELS STEL | 2,7 mg/m3 1,0 ppm | 15 minutes | |
| sulfur dioxide | EU ELV TWA | 1,3 mg/m3 0,5 ppm | | Indicative |
| sulfur dioxide | EU ELV STEL | 2,7 mg/m3 1 ppm | | Indicative |

EH40 WEL - UK. EH40 Workplace Exposure Limits (WELs), as amended
TWA - Time weighted average
EH40 WEL - UK. EH40 Workplace Exposure Limits (WELs), as amended
STEL - Short term exposure limit

### DNEL/ PNEC-Values

| Component | End-use/impact | Exposure duration | Value | Exposure routes | Remarks |
|---|---|---|---|---|---|
| ethyl alcohol | Workers / Acute local effects | | 1900 mg/m3 | Inhalation | |
| ethyl alcohol | Workers / Long-term | | 343mg/kg bw/d | Skin contact | |

| | | | | | |
|---|---|---|---|---|---|
| | systemic effects | | | | |
| ethyl alcohol | Workers / Long-term systemic effects | | 950 mg/m3 | Inhalation | |
| ethyl alcohol | Consumers / Long-term systemic effects | | 114 mg/m3 | Inhalation | |
| ethyl alcohol | Consumers / Acute local effects | | 950 mg/m3 | Inhalation | |
| ethyl alcohol | Consumers / Long-term systemic effects | | 206mg/kg bw/d | Skin contact | |
| ethyl alcohol | Consumers / Long-term systemic effects | | 87mg/kg bw/d | Ingestion | |
| sulfur dioxide | Workers / Long-term local effects | | 1,3 mg/m3 | Inhalation | |
| sulfur dioxide | Workers / Acute local effects | | 2,7 mg/m3 | Inhalation | |
| sulfur dioxide | Consumers / Long-term local effects | | 0,53 mg/m3 | Inhalation | |

| Component | Environmental compartment / Value | Remarks |
|---|---|---|
| ethyl alcohol | Fresh water: 0,96 mg/l | |
| ethyl alcohol | Marine water: 0,79 mg/l | |
| ethyl alcohol | Fresh water sediment: 3,6 mg/kg | |
| ethyl alcohol | Soil: 0,63 mg/kg | |
| sulfur dioxide | : | No data available |

### 8.2. Exposure controls

**Occupational exposure controls**

Do not breathe vapor.
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:*
In case of insufficient ventilation wear suitable respiratory equipment.

*Hand protection:*
Glove material: butyl-rubber
Break through time: > 480 min
Glove thickness: 0,7 mm
Butoject® 898
Gloves must be inspected prior to use.
Replace when worn.
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 | : | weak |
| (d) Melting point/freezing point | : | -115 °C |
| (e) Boiling point/boiling range | : | No data available |
| (g) Lower and upper explosion limit | : | Lower explosion limit<br>No data available |
| | : | Upper explosion limit<br>No data available |
| (h) Flash point | : | 12 °C |
| (i) Auto-ignition temperature | : | No data available |
| (j) Decomposition temperature | : | No decomposition if used as directed. |
| (k) pH | : | 5 - 6 |
| (l) Viscosity, kinematic | : | No data available |
| (m) Solubility(ies) | : | Water solubility:<br>completely miscible |
| (n) Partition coefficient: n-octanol/water | : | No data available |

| | | |
|---|---|---|
| (o) Vapour pressure | : | No data available |
| (p) Density and / or relative density | : | 0,895 g/cm3 |
| (q) Relative vapour density | : | No data available |
| (r) Particle characteristics | : | No data available |

**9.2 Other Information**

| | | |
|---|---|---|
| Polymer characteristics | : | No data available |
| Oxidizing properties | : | Not applicable: Not expected to have oxidizing properties based on theoretical evaluation |
| Evaporation rate | : | No data available |
| Viscosity, dynamic | : | No data available |

## 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

Hazardous polymerisation does not occur.

### 10.4. Conditions to avoid

Protect from atmospheric moisture and water.

### 10.5. Incompatible materials

Formation of explosive gas/air mixtures.

**10.6. Hazardous decomposition products**

Sulphur oxides
Nitrogen oxides (NOx)
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: > 2.000 mg/kg
Method: Calculation method

*Acute dermal toxicity:*
No data available

*Acute inhalation toxicity:*
Acute toxicity estimate
Value: > 20 mg/l
Exposure time: 4 h
Method: Calculation method

*Acute toxicity (other routes of administration):*
No data available

***(b) Skin corrosion/irritation:***
The product has not been tested. The information is derived from the properties of the individual components.

***(c) Serious eye damage/eye irritation:***
The product has not been tested. The information is derived from the properties of the individual components.

***(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:***
Remarks: No data available

***(i) STOT - repeated exposure:***
No data available
*STOT - repeated exposure:*
Remarks: No data available

***(j) Aspiration hazard:***
No data available

### 11.2. Information on other hazards

*Endocrine disrupting properties*
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.

*Other information:*
No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

*Toxicity to fish:*
LC50
Species: Pimephales promelas (fathead minnow)
Value: 14.200 mg/l
Exposure time: 96 h
Test substance: Ethanol

NOEC
semi-static test
Species: Danio rerio (zebra fish)
Value: 250 mg/l

Exposure time: 120 h
Method: OECD Test Guideline 212
Test substance: Ethanol

*Toxicity to aquatic plants:*
EC50
Growth rate
Species: Chlorella vulgaris (Fresh water algae)
Value: 275 mg/l
Exposure time: 3 d
Method: OECD Test Guideline 201
Test substance: Ethanol

EC50
Growth rate
Species: Chlorella vulgaris (Fresh water algae)
Value: 675 mg/l
Exposure time: 4 d
Method: OECD Test Guideline 201
Test substance: Ethanol

EC50
Biomass
Species: Lemna gibba (gibbous duckweed)
Value: 5.967 mg/l
Exposure time: 7 d
Test substance: Ethanol

NOEC
Biomass
Species: Lemna gibba (gibbous duckweed)
Value: 5.967 mg/l
Exposure time: 7 d
Test substance: Ethanol

*Toxicity to aquatic invertebrates:*
LC50
static test
Species: Ceriodaphnia dubia (water flea)
Value: 5.012 mg/l
Exposure time: 48 h

Test substance: Ethanol

### 12.2. Persistence and degradability

*Biodegradability*:
aerobic
Biodegradation: 95 %
Exposure time: 15 d
Result: Readily biodegradable.
Test substance: Ethanol

### 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/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.
Product does not contain substances that are persistent, mobile, and toxic (PMT/vPvM) at levels of 0.1 % or higher.

### 12.6. Endocrine disrupting properties

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.

### 12.7. Other adverse effects

No data available

## 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:*
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:1170 IMDG:1170 IATA:1170

**14.2 UN proper shipping name**
ADR/RID:ETHANOL SOLUTION
IMDG:ETHANOL SOLUTION
IATA:Ethanol solution

**14.3 Transport hazard class(es)**
ADR/RID:3 IMDG: 3 IATA: 3

**14.4 Packaging group**
ADR/RID:II IMDG: II IATA: II

**14.5 Environmental hazards**
ADR/RID:no Marine pollutant: no

**14.6 Special precautions for user**
No data available

**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**

**Other inventory information**

USA. List of Active Substances on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory, as amended

Not On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
Not in compliance with the inventory

Canada. Domestic Substances List (DSL), as amended
Not in compliance with the inventory

Japan. Kashin-Hou Law List
Not in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
Not in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
Not in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory, or has been registered as new substance

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
Not in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
Not 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**

| | | | |
|---|---|---|---|
| ethyl alcohol | : | H225 | Highly flammable liquid and vapour. |
| | | H319 | Causes serious eye irritation. |
| 2-Ethylimidazole | : | H302 | Harmful if swallowed. |
| | | H315 | Causes skin irritation. |

| | | | |
|---|---|---|---|
| | | H318 | Causes serious eye damage. |
| sulfur dioxide | : | H280 | Contains gas under pressure; may explode if heated. |
| | | H331 | Toxic if inhaled. |
| | | H314 | Causes severe skin burns and eye damage. |
| | | H370 | Causes damage to organs. |

**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.
This document is not a UK REACH-compliant SDS, and the Great Britain importer bears full responsibility for UK REACH compliance. This document is provided to assist the Great Britain importers in ensuring their own compliance.