

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

### 1.1. Product identifier

Product form : Mixture  
Name : Vinegar  
Trade name : Verdad® F340

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

#### 1.2.1. Relevant identified uses

Main use category : Industrial use  
Use of the substance/mixture : Food

#### 1.2.2. Uses advised against

Restrictions on use : This product must not be used in applications other than those identified above, without first seeking advice of the supplier

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

Purac Biochem bv  
Arkelsedijk 46  
4206 AC Gorinchem - The Netherlands  
T +31 183 695695 - F +31 183 695604  
[sds@corbion.com](mailto:sds@corbion.com)

### 1.4. Emergency telephone number

Emergency number : +31 183 695695

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Health Service (NHS)		111 999 (in life-threatening emergencies)	
Wales	National Health Service (NHS)		0845 46 47	

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315  
Serious eye damage/eye irritation, Category 2 H319  
Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

Causes skin irritation. Causes serious eye irritation.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Comments : Mixture based on vinegar

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acetic Acid (from Vinegar)	(CAS-No.) 64-19-7	<25	Flam. Liq. 3, H226 Skin Corr. 1A, H314

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.  
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : May cause respiratory irritation.  
Symptoms/effects after skin contact : May cause slight irritation to the skin.  
Symptoms/effects after eye contact : May cause slight irritation to eyes.

### 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 : Water spray. Dry powder. Foam. Carbon dioxide.  
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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

Hazardous decomposition products in case of fire : Under fire conditions, hazardous fumes will be present. Carbon dioxide. Carbon monoxide.

**5.3. Advice for firefighters**

Firefighting instructions

: Evacuate personnel to a safe area. Use water spray or fog for cooling exposed containers. Move containers from fire area if it can be done without personal risk. Prevent fire fighting water from entering the environment.

Protection during firefighting

: 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**

**6.1.1. For non-emergency personnel**

Protective equipment

: Wear recommended personal protective equipment.

Emergency procedures

: Ventilate spillage area. Avoid contact with skin, eyes and clothing. Do not touch or walk on the spilled product. Evacuate unnecessary personnel. Do not breathe vapours.

**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".

**6.2. Environmental precautions**

Avoid release to the environment.

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

For containment

: Stop leak without risks if possible. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.

Methods for cleaning up

: Take up liquid spill into absorbent material. Shovel or sweep up and put in a closed container for disposal.

Other information

: Dispose of materials or solid residues at an authorized site.

**6.4. Reference to other sections**

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Precautions for safe handling

: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Avoid contact with skin, eyes and clothing. Do not breathe vapour/aerosol.

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

Storage conditions

: Keep container tightly closed in a cool, well-ventilated place.

Storage area

: Store according to local legislation.

**7.3. Specific end use(s)**

No additional information available

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

**8.1. Control parameters**

<b>Acetic Acid (from Vinegar)</b>	
<b>EU - Occupational Exposure Limits</b>	
Local name	Acetic Acid (from Vinegar)
IOELV TWA (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
IOELV TWA (ppm)	10 ppm
IOELV STEL (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
IOELV STEL (ppm)	20 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164

<b>Acetic Acid (from Vinegar)</b>	
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Acetic Acid (from Vinegar)
OEL (8 hours ref) (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
OEL (8 hours ref) (ppm)	10 ppm
OEL (15 min ref) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
OEL (15 min ref) (ppm)	20 ppm
Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Acetic Acid (from Vinegar)
WEL TWA (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
WEL TWA (ppm)	10 ppm
WEL STEL (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
WEL STEL (ppm)	20 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

## 8.2. Exposure controls

### Appropriate engineering controls:

Ensure good ventilation of the work station.

<b>Hand protection:</b>					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Butyl rubber	6 (> 480 minutes)	0.5		EN 374
<b>Eye protection:</b>					
Chemical goggles or safety glasses					
Type	Use	Characteristics	Standard		
Safety goggles	Droplet		EN 166		
<b>Skin and body protection:</b>					
Type	Standard				
Long sleeved protective clothing					
<b>Respiratory protection:</b>					
No respiratory protection needed under normal use conditions. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended					
Device	Filter type	Condition	Standard		
Reusable half mask	Filter AX (brown)	Vapour protection, Mist formation			

### Personal protective equipment symbol(s):



**Environmental exposure controls:**

Avoid release to the environment.

**Other information:**

Handle in accordance with good industrial hygiene and safety procedures. Workers must be trained in the proper use and handling of this product as required under applicable regulations. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Colour	: yellowish
Odour	: No data available
Odour threshold	: No data available
pH	: 3 - 5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1100 kg/m <sup>3</sup>
Solubility	: soluble in water
Log Pow	: 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	: No data available

**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use. Hazardous polymerisation: Will not occur.

**10.4. Conditions to avoid**

Do not expose to temperatures above 200 °C.

**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) : Not classified

Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

<b>Acetic Acid (from Vinegar)</b>	
LD50 oral rat	3310 mg/kg bodyweight
LD50 oral	4960 mg/kg bodyweight
Skin corrosion/irritation	: Causes skin irritation. pH: 3 - 5
Serious eye damage/irritation	: Causes serious eye irritation. pH: 3 - 5
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

<b>Acetic Acid (from Vinegar)</b>	
NOAEL (oral, rat, 90 days)	290 mg/kg bodyweight Animal: rat, Animal sex: male

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Not classified

<b>Acetic Acid (from Vinegar)</b>	
LC50 fish 2	> 300.82 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 Daphnia 2	> 300.82 mg/l daphnia
EC50 72h algae (2)	> 300.82 mg/l

### 12.2. Persistence and degradability

<b>Acetic Acid (from Vinegar)</b>	
Persistence and degradability	Preparation based on substances which are readily biodegradable.

<b>Acetic Acid (from Vinegar)</b>	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

<b>Acetic Acid (from Vinegar)</b>	
Bioaccumulative potential	Bioaccumulation unlikely.

<b>Acetic Acid (from Vinegar)</b>	
BCF fish 1	3.16 Quantitative structure-activity relationship (QSAR)
Log Pow	-0.17

Bioaccumulative potential	Low bioaccumulation potential.
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#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

##### Acetic Acid (from Vinegar)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

##### Component

Acetic Acid (from Vinegar)

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

#### 12.6. Other adverse effects

Other adverse effects : No specific adverse effects known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

#### 14.6. Special precautions for user

##### Overland transport

Not regulated

##### Transport by sea

Not regulated

##### Air transport

Not regulated

##### Inland waterway transport

Not regulated

##### Rail transport

Not regulated

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

**SECTION 15: Regulatory information**

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

**15.1.1. EU-Regulations**

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
3(a)	Acetic Acid (from Vinegar)	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	Acetic Acid (from Vinegar)	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
40.	Acetic Acid (from Vinegar)	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

**SECTION 16: Other information**

**Indication of changes:**

Not applicable.

**Abbreviations and acronyms:**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level



NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Training advice : Ensure staff are informed of and trained on the nature of exposure and basic actions to minimise exposure.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Corbion SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*