



A wetting and water conservation agent.

Keep out of reach of children.  
Do not eat, drink or smoke when using this product.  
Keep away from food or feed and drinks.  
Safety data sheet available on request (EUH 208).  
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.  
WASH OUT CONTAINER THOROUGHLY, and dispose of safely.  
\*DO NOT RE-USE CONTAINER for any other purpose

#### IMPORTANT INFORMATION

Apply QUALIBRA as a preventative programme to prevent the development of dry patch (localised dry spot).

#### DIRECTIONS FOR USE

##### GENERAL INFORMATION

QUALIBRA is a wetting and water conservation agent that has been developed to help in the management of water in turf-grass root zones, and to help prevent dry patch (localised dry spot).  
QUALIBRA comprises a dynamic penetrant and a powerful polymer. The penetrant component drives more efficient water movement and distribution within the root zone; while the polymer component holds moisture deeply and evenly within the root zone. It is designed for use on all areas of golf courses, sports fields and other amenity turf areas.  
QUALIBRA is well tolerated by all major turf species and allows more uniform distribution of moisture throughout the root zone. Following application water conservation effects occur throughout the root zone and not just on the surface or thatch layers. For optimum turf quality QUALIBRA should be used in conjunction with turf management practices that promote good turf health.

#### RESTRICTIONS

Prevent spray drift onto surrounding areas. Do not apply when ground is frozen.

#### CROP SPECIFIC INFORMATION

Apply as a preventative programme to prevent the development of dry patch (localised dry spot)

#### Rates of Use

Apply at a rate of 20 l/ha in a water volume of 400-1000 litres per hectare.

#### Timing

Apply QUALIBRA at approximately monthly intervals in a preventative programme to prevent the development of localised dry spot and aid water management.  
QUALIBRA would typically be applied from early spring to autumn, but can be applied throughout the year if required.

#### MIXING AND SPRAYING

Make sure the sprayer is clean and set to give an even application at the correct volume and an even deposit. Half fill the spray tank with clean water and commence agitation. Add the required quantity of QUALIBRA to the spray tank. Complete filling to the required volume and continue to agitate throughout the spraying operation.  
Do not leave the spray liquid in the sprayer for long periods (such as during meal breaks or overnight). Make up only the amount of spray required for immediate use. Thoroughly wash all spray equipment with water immediately after use.

#### Good Field Practice

As part of our Product Stewardship policy, Syngenta Crop Protection recommends the following precautions should also be observed:

- Wear appropriate clothing - coveralls and protective gloves, when handling the concentrate.

For further information please see [www.greencast.co.uk](http://www.greencast.co.uk) or [www.greencast.ie](http://www.greencast.ie)

# 200 L

QUALIBRA® is a trademark of a Syngenta Group Company

#### Safety Data Sheet - v2.1

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

###### 1.1 Product identifier

Trade name: QUALIBRA  
Design code: A16982A

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

Use of the Substance/Mixture: Wetting agent

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

Company: Syngenta UK Limited, CPC4, Capital Park, Fulbourn, Cambridge CB21 5XE, United Kingdom  
Telephone: +44 (0) 1223 883400  
Telefax: +44 (0) 1223 882195  
E-mail address of person responsible for the SDS: [customer.services@syngenta.com](mailto:customer.services@syngenta.com)

###### 1.4 Emergency telephone number

Emergency telephone number: +44 1484 538444

##### SECTION 2: Hazards identification

###### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567**

Not a hazardous substance or mixture.

###### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required  
Precautionary statements: P102 Keep out of reach of children.

P270 Do not eat, drink or smoke when using this product  
P401 Keep away from food or feed and drinks

Additional Labelling:

EUH210 Safety data sheet available on request.

###### 2.3 Other hazards

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

###### 3.2 Mixtures

###### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
oxirane, methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether	174955-61-4	Acute Tox. 4; H302 Eye Irrit. 2; H319	>= 20 - < 30

For explanation of abbreviations see section 16.

##### SECTION 4: First aid measures

###### 4.1 Description of first aid measures

General advice: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.  
If inhaled: Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control centre immediately.  
In case of skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.  
In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.  
If swallowed: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

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

Symptoms: Nonspecific. No symptoms known or expected.

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

Treatment: There is no specific antidote available. Treat symptomatically.

##### SECTION 5: Firefighting measures

###### 5.1 Extinguishing media

Suitable extinguishing media

Extinguishing media - small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires: Alcohol-resistant foam or Water spray

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

Specific hazards during fire-fighting: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

###### 5.3 Advice for firefighters

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus.

Further information: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

##### SECTION 6: Accidental release measures

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

Personal precautions: Refer to protective measures listed in sections 7 and 8.

###### 6.2 Environmental precautions

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

###### 6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

##### SECTION 7: Handling and storage

###### 7.1 Precautions for safe handling

Advice on safe handling: No special protective measures against fire required. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

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

Requirements for storage areas and containers: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

###### 7.3 Specific end use(s)

Specific use(s): Refer to protective measures listed in sections 7 and 8.

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

###### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

###### 8.2 Exposure controls

###### Engineering measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.  
The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

###### Personal protective equipment

Eye/face protection: No special protective equipment required.

Hand protection

Remarks: No special protective equipment required.

Skin and body protection: No special protective equipment required. Select skin and body protection based on the physical job requirements.

Respiratory protection: No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Protective measures: The use of personal protective equipment should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice.

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

###### 9.1 Information on basic physical and chemical properties

Appearance: mobile, clear to slightly turbid, liquid	Vapour pressure: No data available
Colour: colourless	Relative vapour density: No data available
Odour: No data available	Density: 1.045 g/cm <sup>3</sup> (20 °C)
Odour Threshold: No data available	Water solubility: No data available
pH: 4.9 - 9.00 (-10 - 40 °C). Concentration: 1%/w/v	Solubility in other solvents: No data available
Melting point/range: No data available	Partition coefficient: n-octanol/water: No data available
Boiling point/boiling range: No data available	Auto-ignition temperature: No data available
Flash point: No data available	Evaporation rate: No data available
Evaporation rate: No data available	Flammability (solid, gas): No data available
Upper explosion limit / Upper flammability limit: No data available	Explosive properties: No data available
Lower explosion limit / Lower flammability limit: No data available	Oxidizing properties: No data available

###### 9.2 Other information

Particle size: No data available

##### SECTION 10: Stability and reactivity

###### 10.1 Reactivity

None reasonably foreseeable.

###### 10.2 Chemical stability

Stable under normal conditions.

###### 10.3 Possibility of hazardous reactions

Hazardous reactions: No dangerous reaction known under conditions of normal use.

###### 10.4 Conditions to avoid

Conditions to avoid: No decomposition if used as directed.

###### 10.5 Incompatible materials

Materials to avoid: None known

###### 10.6 Hazardous decomposition products

Hazardous decomposition products: No hazardous decomposition products are known.

##### SECTION 11: Toxicological information

###### 11.1 Information on toxicological effects

Information on likely routes of exposure: Ingestion, Inhalation, Skin contact, Eye contact

###### Acute toxicity

###### Product:

Acute oral toxicity: Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

###### Components:

**oxirane, methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether:**

Acute oral toxicity: LD50 (Rat, male and female): > 300 - 2,000 mg/kg

Assessment: The component/mixture is moderately toxic after single ingestion.

###### Serious eye damage/eye irritation

###### Product:

Species: Rabbit

Result: No eye irritation

###### Components:

**oxirane, methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether:**

Result: Eye irritation

Remarks: Information given is based on data obtained from similar substances.

##### SECTION 12: Ecological information

###### 12.1 Toxicity

###### Components:

**oxirane, methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether:**

###### Ecotoxicology Assessment

Acute aquatic toxicity: This product has no known ecotoxicological effects.

Chronic aquatic toxicity: This product has no known ecotoxicological effects.

###### 12.2 Persistence and degradability

###### Components:

**oxirane, methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether:**

Biodegradability:

Result: Readily biodegradable.

Biodegradation: 64 %

Exposure time: 28 d

Method: OECD Test Guideline 301B

###### 12.3 Bioaccumulative potential

No data available

###### 12.4 Mobility in soil

Product:

Distribution among environmental compartments: Remarks: No data available

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

###### Product:

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.

###### 12.6 Other adverse effects

###### Product:

Endocrine disrupting potential: The substance/mixture does not contain components consid-ered 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.

##### SECTION 13: Disposal considerations

###### 13.1 Waste treatment methods

###### Product:

Where possible recycling is preferred to disposal or incineration. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Contaminated packaging: Dispose of as unused product.

##### SECTION 14: Transport information

###### 14.1 UN number

ADR: Not regulated as a dangerous good

RID: Not regulated as a dangerous good

IMDG: Not regulated as a dangerous good

IATA: Not regulated as a dangerous good

###### 14.2 UN proper shipping name

ADR: Not regulated as a dangerous good

RID: Not regulated as a dangerous good

IMDG: Not regulated as a dangerous good

IATA: Not regulated as a dangerous good

###### 14.3 Transport hazard class(es)

ADR: Not regulated as a dangerous good

RID: Not regulated as a dangerous good

IMDG: Not regulated as a dangerous good

IATA: Not regulated as a dangerous good

###### 14.4 Packing group

ADR: Not regulated as a dangerous good

RID: Not regulated as a dangerous good

IMDG: Not regulated as a dangerous good

IATA (Cargo): Not regulated as a dangerous good

IATA (Passenger): Not regulated as a dangerous good

###### 14.5 Environmental hazards

Not regulated as a dangerous good

###### 14.6 Special precautions for user

Remarks: Not classified as dangerous in the meaning of transport regulations.

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

Not applicable for product as supplied.

##### SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17): Not applicable

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation: Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain): Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

UK REACH List of substances subject to authorisation (Annex XIV): Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation: Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH) Not applicable

###### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

##### SECTION 16: Other information

###### Full text of H-Statements

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

###### Full text of other abbreviations

Acute Tox.: Acute toxicity

Eye Irrit.: Eye irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemical