WICKLOW WAY WINES SAFETY DATA SHEET

HAND SANITISER, 70% ALCOHOL

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

1.1 Product identifier

Brandname Wicklow Way Wines Hand Sanitiser, 70% Alcohol
Product name: Hand sanitiser (contains 70% alcohol (grain neutral spirit))
Synonyms for main ingredient: Ethanol, Alcohol, Hydroxy ethane
Formula of main ingredient: C2H6O
Molecular mass of main ingredient: 46.08
FL-No. 2.078
FEMA-No. 2419
Annex VI-No. 603-002-00-5
CAS No 64-17-5
EC No 200-578-6
REACH status Compliant
REACH register no. 01-2119457610-43
Revision date 21-09-2017

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

Relevant identified uses of the substance

Sector of Uses - SU - 3, 8, 9, 10, 21, 22.
Product of Categories - PC - 1, 2, 3, 4, 8, 9a, 9b, 9c, 12, 13, 14, 15, 16, 17, 18, 23, 24, 27, 28, 30, 31, 34, 35, 40
Process Categories - PROC - 1, 2, 3, 4, 5, 7, 8a, 9, 10, 11, 13, 14, 15, 16, 19, 21
Environmental Release Categories - ERC - 1, 2, 4, 6a, 7, 8a, 8d, 9a, 9b.
Full text of the categories listed in appendix 1.
Uses of the substance advised against – None

1.3. Details of the supplier of the safety data sheet

Company identification

Wicklow Way Wines
Unit 8 Newtown Business and Enterprise Centre,
Newtownmountkennedy,
Co Wicklow
Non emergency telephone +353(1)2021836
E-mail address info@wicklowwaywines.ie

1.4 Emergency telephone number

Information on poisoning centres can be found in appendix 2. This information in intended exclusively for informing professional care workers in case of acute poisoning.

SECTION 2: Hazards identification

2.1 Classification of the substance/mixture

Classification according to Regulation (EC) No 1272/2008 as amended

Hazard Classes/Hazard Class-, Category- and Statement Codes

Flammable liquid Flam. Liq. 2, H225
Serious eye irritation Eye Irrit. 2, H319

Essential adverse effects

Product and product vapours are highly flammable.
Formation of explosive product-air mixtures possible.
Irritating to eyes.

2.2. Label elements
Label according to Regulation (EC) No. 1272/2008 as amended
Signal word DANGER
Hazard statement
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
Precautionary statements
Prevention
P210 Keep away from heat / sparks / open flames / hot surfaces. - No smoking.
P233 Keep container tightly closed.
Response
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice / attention.
P370 + P378 In case of fire: Use powder, alcohol-resistant foam, lots of water, carbon dioxide for extinction.
Storage
P403 + P235 Store upright in a well-ventilated place. Keep cool.
Disposal
P501 Dispose of contents / container to a specialised waste disposal plant in accordance with local / regional regulations.
2.3 Other hazards
Results from PBT- and vPvB-assessment
Neither meets criteria for PBT nor for vPvB according to Annex XIII of the Regulation (EC) No.1907/2006 (REACH Regulation).
Additional hazards
n/a

SECTION 3: Composition/information on ingredients

Chemical name	CAS No	EC#	Concentration
Ethanol	64-17-5	200-578-6	96 vol.%
Water	7732-18-5	231-791-2	≤ 4 vol.%

SECTION 4: First aid measures
4.1 Description of first aid measures
General information
Remove the person concerned from exposure, and lay down. Fresh air, rest, keep warm (cover with a blanket). In the case of unconsciousness or remaining complaints immediately seek medical attention. Take off contaminated pieces of clothing and shoes.
Inhalation
Fresh air supply, breath donation if necessary, warmth. Consult a physician in the case of remaining complaints. In the case of unconsciousness, position the patient in the lateral recumbent position.
Skin contact
Wash skin with plenty of water or take shower. After cleaning use fatty skin care products. In the case of remaining skin irritation, consult a physician.
Eye contact
Flood the eye with plenty of water for a few minutes, holding the eyelids open. Remove contact lenses. Consult an eye-doctor.
Ingestion
Rinse mouth and drink plenty of water. In the case of unconsciousness, position the patient in the lateral recumbent position.
4.2. Most important symptoms and effects, both acute and delayed
Acute symptoms and effects from exposure
Irritation of mucus membranes caused by eye contact or inhalation.
Delayed symptoms and effects from exposure
Interference of the inhibiting functions of the central nervous system, reddening of the skin, nausea resulting from ingestion of larger quantities.

4.3. Indication of any immediate medical attention and special treatment needed
Information on medical attendance
Not necessary.
Special means to provide treatment at the workplace
Not necessary.

SECTION 5: Fire fighting measures
5.1 Extinguishing media
Suitable extinguishing media
Alcohol resistant foam, ABC-Powder, BC-Powder, carbon dioxide, water spray.
Unsuitable extinguishing media
Water jet, alcohol unstable foam
5.2 Special hazards arising from the substance/mixture
Hazardous combustion products
Carbon monoxide and carbon dioxide containing combustion gases.
Additional hazards
Formation of explosive gas-air mixtures. Extreme generation of heat in the case of larger fires.

5.3 Advice for firefighters
Protective actions
Use water spray to cool exposed containers in the environment. Retain contaminated extinguishing water; do not allow entering into the sewage system. In the case of larger fires: Cordon affected area. Keep unprotected persons away.
Special protective equipment
Self-contained respiratory protective device, fully protective suit.

SECTION 6: Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedure
For non-emergency personnel
In the case of large quantities: Use personal protective equipment to avoid any contamination of skin, eyes and personal clothes. Remove potential sources of ignition.
Do not smoke. Take measures against static discharge. Assure sufficient ventilation.
Only use suited and explosion-proof tools and devices. If available, observe corporate hazard-control and emergency plans.
For emergency responders
If available, observe corporate respectively external hazard-control plans.
6.2 Environmental precautions
Precautions to be taken related to spills
In the case of smaller quantities: no special measures required. In the case of larger quantities: Avoid penetration into the sewage canal, surface water, and ground water.
Precautions to be taken related to accidental release
Observe the fire and explosion protection measures.
Avoid contamination of the sewage channel, surface water, and ground water.
6.3 Methods and material for containment and cleaning up
Advice on spillage containment
In the case of smaller quantities: absorb in liquid-binding material (sand, diatomaceous earth, universal binding agent, sawdust).
In the case of larger quantities: apply an exhausting procedure. Erect barriers, cover canal inlets, close the spool valves of the floor drains.
Appropriate clean-up procedures
In the case of smaller quantities: no additional clean-up procedures necessary.
In the case of larger quantities: use water for the final purification.
Inappropriate containment or clean-up techniques
None known
6.4 Reference to other sections
Personal protective equipment
See Section 8.
Disposal considerations
See Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations for safe handling

Store in properly sealed original containers. Storage area should be cool. Heating induces an increase in pressure, danger of bursting. Provide for solvent-resistant and compact flooring. In the case of storage of larger quantities the required retention volume has to be assured. Do not store together with incompatible materials. Only transfer into suited and resistant containers. Containers have to be properly labelled.

Advice on general occupational hygiene

The usual precautionary measures when handling chemicals have to be observed. When using, do not eat, drink, smoke, or sniff. Wash hands thoroughly with water and soap, and use skin care products before breaks and at the end of the work. Preventive skin protection is recommended. Apply and rub thoroughly water insoluble skin protection preparations before the start of work and at the end of each break. After cleaning use fatty skin care products.

7.2. Conditions for safe storage, including any incompatibilities

Fire and explosion prevention

Only use in well-ventilated areas. Take care of sufficient ventilation; especially at floor level (vapours are heavier than air). Take measures to prevent electrostatic charges, e.g. grounding when transferring/ filing. Keep away from sources of ignition - do not smoke.
Vapour-air mixtures are explosive (e.g. formation also in empty, uncleaned containers).

Protection against ambient influences

Protect against heat and direct solar radiation. Suited materials for containers are: solvent resistant plastics, stainless steel 1.4301 (V2), 1.4401 (V42), iron.

Protection against autodecomposition

Not required.

Other conditions

None.

7.3 Specific end use(s)

Recommendations

If used as food or beverage, compliance with food safety regulation (HACCP) has to be observed.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Limit values ethanol
Belgium: 8 hours (mean value) 1907 mg/m3, 1000 ppm
Germany: 8 hours (mean value) 960 mg/m3, 500 ppm
France: 8 hours (mean value) 1900 mg/m3, 1000 ppm. Short term (15 min) 9500 mg/m3, 5000 ppm
Ireland: 8 hours (mean value) 1900 mg/m3, 1000 ppm

Italy: Short term (15 min) 1000 ppm
Netherlands: 8 hours (mean value) 260 mg/m3. Short term (15 min) 1900 mg/m3. Remark: skin
Austria: 8 hours (mean value) 1900 mg/m3, 1000 ppm. Short term (15 min) 3800 mg/m3, 1900 ppm
Switzerland: 8 hours (mean value) 960 mg/m3, 500 ppm. Short term (15 min) 1920 mg/m3, 1000 ppm
United Kingdom: 8 hours (mean value) 1920 mg/m3, 1000 ppm

DNEL

Workers short term exposition
DNEL worker (acute, inhalation - systemic): No data required
DNEL worker (acute, inhalation - local): 1 900 mg/m3
DNEL worker (acute, dermal - systemic): No data required
DNEL worker (acute, dermal - local): No data required
Workers long term exposition
DNEL worker (long-term, inhalation - systemic): 950 mg/m3
DNEL worker (long-term, inhalation - local): No data required
DNEL worker (long-term, dermal - systemic): 343 mg/kg bw/d
DNEL worker (long-term, dermal - local): No data required
Consumers short term exposition
DNEL general population (acute, inhalation - systemic): No data required
DNEL general population (acute, inhalation - local): 950 mg/m3
DNEL general population (acute, dermal - systemic): No data required
DNEL general population (acute, dermal - local): No data required
Consumers long term exposition
DNEL general population (long-term, inhalation - systemic): 114 mg/m3
DNEL general population (long-term, inhalation - local): No data required
DNEL general population (long-term, oral - local): 87 mg/kg
DNEL general population (long-term, dermal - systemic): 206 mg/kg bw/d
DNEL general population (long-term, dermal - local): No data required

PNEC

Aquatic,
fresh water: PNEC aquatic (freshwater): 0.96 mg/L
marine water: PNEC aquatic (marine water): 0.79 mg/L
intermittent release: PNEC aquatic (intermittent release): 2.75 mg/L
sewage treatment: PNEC microorganisms: 580 mg/L
Sedimentary
fresh water sediment: PNEC sediment: 3.6 mg/kg sediment dw
marine water sediment: PNEC marine-sediment: 2.9 mg/kg sediment dw
Terrestrial – soil: PNEC soil: 0.63 mg/kg soil dw
Atmospheric
biotic: PNEC air (biotic): No data required
abiotic: PNEC air (abiotic): No data required
Secondary poisoning - food chain: PNEC oral: 0.72 mg/kg food

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Exposure control measures

As far as required by the assessment of the exposure scenario, effective local exhaust ventilation shall be provided. Explosion prevention has to be observed.

8.2.2 Individual protection measures, such as personal protective equipment Eye/face protection

Safety eye wear, e.g. protective goggles (EN 166). The rules for the application of eye- and face protection have to be observed.

Skin/body protection

Solvent resistant protective clothing. Select body protection depending on the kind of work and possible impacts, e.g. apron, protective boots, chemical protective suit according to EN 14 605. Selection of the glove material with respect to break through times, permeation rates and degradation. Suited glove material in the case of prolonged, direct full contact (Break through time according to EN 374 > 480min): Butyl rubber (Butyl), recommended glove thickness: 0.7 mm. Suited glove material in the case of splash contact (Break through time according to EN 374 > 120 min): Nitrile rubber (NBR), recommended glove thickness: 0.4 mm. Other glove materials may be suited, too. The selection of suited protective glove does not depend only from the material but also from other quality

characteristics and may vary from manufacturer to manufacturer. The used protective gloves have to comply with the specifications of 89/686/EEC. The rules for the application of protective gloves and the practice of skin protection have to be observed.

Respiratory protection

As far as required by the assessment of the exposure scenario or in exceptional cases (e.g. in the case of accidental substance release, exceeding of the occupational exposure limit) the wearing of respiratory protection apparatus is required. The limitation of the wearing period has to be observed. Suitable respiratory protection: Breathing apparatus; gas filter A; identification colour: brown). Details of the pre-conditions for usage and the maximum application concentration have to be observed. Self-contained respirator (breathing apparatus according to DIN EN 133), to be used in the case of concentrations above the application limit of filtering devices, at oxygen concentrations below 17 % by volume or in the case of ambiguous conditions.

Observe further national regulations concerning respiratory protection.

Thermal hazards

Required in the case of fire, see section 5.

8.2.3 Environmental exposure controls

EC legislation

Water (76/464/EEC): not listed

Air (1999/30/EC): not listed

Risk management measures

See Section 15

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form Highly mobile liquid

Colour Colourless

Odour Typical alcoholic

Odour threshold (mg/m³) 178

pH value (100 g/L at 20 °C) 5.3

Melting point/freezing point (˚C) - 114

Boiling point (˚C) at 1013 hPa 78.2

Flash point (˚C) 15 (closed cup)

Evaporation rate (butylacetate = 1) Ethanol 95% 1.4, Water 0.3

Flammability (solid, gas) Not applicable.

Upper/lower explosive limits (vol%) 2.5 - 13.5

Vapour pressure (hPa) at 20˚C 57.3

Vapour pressure (hPa) at 25˚C 79

Vapour density (kg/m³) 1.8

Relative vapour density (air = 1) 1.6

Relative density at 20 °C 0.806

Relative density at 25 °C 0.809

Solubility in water (g/l) Unlimited miscible with water

Solubility in fat Soluble

Partition coefficient (Log K octanol/water) at 20 °C - 0.35

Auto-ignition temperature (˚C) 363

Decomposition temperature > 700 (secondary literature), Thermal stable, no self-reactive substance

Viscosity (dynamic) at 20 ˚C (mPa.s) 1.2

Viscosity (kinematic) at 20˚C (µm2/s) 1.52

Explosive properties No explosive properties (justified by the chemical structure).

Oxidising properties No oxidising properties (justified by the chemical structure).

Miscibility Unlimited miscible with diethyl ether, chloroform, petrol and benzene.

Conductivity (pS/m) 130 000

Self-heating properties No self-heating substance.

Dissociation constant at 20°C (pKa) 15.8

Heat of combustion (kJ/kg) 29 685

SECTION 10: Stability and reactivity

10.1 Reactivity

General information

No hazardous reactions provided that the instructions/advices concerning storage and handling have been implemented effectively.
Corrosiveness to metals
Not corrosive to metals.
10.2 Chemical stability
Stability under ambient conditions
Stable at usual storage conditions.
Required stabilisers
No stabilizers required.
Further information
None.
10.3 Possibility of hazardous reactions
Exothermic reactions
Exothermic, partially violent reactions with alkali and alkaline earth metals, strong acids and oxidizers possible.
Spontaneous polymerisation
No polymerisation.
10.4 Conditions to avoid
Temperature
Storage temperatures > 40 °C should be avoided (increase in pressure, deformation of the containers), if applicable, equalizing of pressure has to be ensured.
Pressure
Not applicable.
Air / oxygen
Not applicable.
Light
Not applicable.
Static discharge
Avoid static discharge, explosion hazard in presence of product /air mixtures.
Other physical stresses
No impacts to be expected.
10.5 Incompatible materials
Violent reactions
Development of heat in reactions with alkali and alkaline earth metals, e.g. sodium (laboratory), with acids, e.g. sulphuric acid or strong oxidizers.
Formation of toxic decomposition products
In the case of fire, formation of carbon monoxide possible.
Formation of explosive atmosphere
Formation of hydrogen-/ethanol-/air-mixtures in reactions with alkali and alkaline earth metals.
Water, humidity
No dangerous reaction with water, no formation of combustible or toxic gases.
10.6 Hazardous decomposition products
During handling and storage
None.

SECTION 11: Toxicological information
11.1 Information on toxicological effects of Ethanol
Acute toxicity
- Oral
Oral administration:
LD50 (rat, female, OECD 401): 15 010 mg/kg
LD50 (rat, male, young animals, OECD 401): 10 600 mg/kg
LD50 (rat, OECD 401): 10 470 mg/kg
LD50 (mouse, OECD 401): 8 350 mg/kg
For the derivation of the DNELs and the assessment in the CSA the value 10 470 mg/kg is used.
- Intraperitoneal
Intraperitoneal administration:
LD50 (rat, young animals, OECD 401): > 5 500 mg/kg
LD50 (rat, fully-grown animals, OECD 401): > 4 070 mg/kg
LD50 (mouse, male, OECD 401): > 9 020 mg/kg

LD50 (mouse, female, OECD 401): > 9 450 mg/kg
Based on available data, the classification criteria for one of the categories of this hazard class are not met.
- Dermal
No test data available.
Due to the rapid evaporation in the case of a skin contamination a dermal exposure is negligible.
Due to this fact, the classification criteria for one of the categories of this hazard class are not met.
- Inhalative
LC50 (rat, female, OECD 403): 55 mg/L/4h
LC50 (rat, male, OECD 403): 51 mg/L/4h
LC50 (mouse, OECD 403): > 60 mg/L/1h
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Repeated dose toxicity
- Oral
NOAEL (90 d, rat, female, OECD 408): 1 730 mg/kgbw/d
NOAEL (90 d, rat, female, OECD 408): > 9 400 mg/kgbw/d
NOAEL (90 d, Macaca radiata, EPA OPPTS): 1 730 mg/kgbw/d
Target organ(s): Liver
For the derivation of the DNELs and the assessment in the CSA the value 1 730 mg/kg is used.
- Dermal
No test data available.
Due to the rapid evaporation in the case of a skin contamination a dermal exposure is negligible. A repeated relevant dermal contamination can be excluded.
- Inhalative
NOAEL (20 d, rat, male, OECD 403): > 20 mg/L

Skin corrosion/irritation
Not irritant (rabbit, OECD 404)
Not irritant to very slightly irritating (epidemiological studies on humans).
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Serious eye damage/eye irritation
No irreversible effects on the eye (rabbit eye, OECD 405)
Irritating to eyes (rabbit eye, OECD 405)

Respiratory or skin sensitisation
Not sensitizing to skin (mouse, male, OECD 429)
Not sensitizing to skin (mouse, ear swelling-test)
Respiratory sensitisation: no data available.
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Germ cell mutagenicity
In-vitro bacterial reverse mutation: negative with and without metabolic Activation (Salmonella typhimurium, OECD 471, Ames test).
In-vitro bacterial reverse mutation: positive and negative without metabolic activation (Escherichia coli, no guideline test).
In-vitro cytotoxicity in mammalian cells: negative without metabolic activation (mouse lymphoma, OECD 476).
In-vitro chromosome aberration: negative without metabolic activation (hamster ovary cells, OECD 473).
In-vivo micro nucleus test: negative (mouse, OECD 475)
In-vivo chromosome aberration: negative (hamster, OECD 475)
Dominant-lethal assay: positive and negative (mouse, OECD 478)
No evidence for germ cell mutagenicity, unless human data which exclusively will be reduced to excessive alcohol consumption remain disregarded.
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Carcinogenicity
NOAEL(carcinogenicity, rat, 24 mon, OECD 451): > 3 000 mg/kgbw
NOAEL(carcinogenicity, mouse, female, 24 mon, EPA OPPTS 870.4200): > 4 400 mg/kgbw
NOAEL(carcinogenicity, mouse, male, 24 mon, EPA OPPTS 870.4200): > 4 250 mg/kgbw

BMDL10 (carcinogenicity, mouse, male, 24 mon): 1 400 mg/kg
Results of epidemiologic studies based on excessive consumption of ethanol in alcoholic beverages cannot be extrapolated for the assessment of cancerogenic properties of ethanol in the work place. The only epidemiologic data, which may be relevant in this context, refers to the development of breast cancer. However available data show that no increased cancer risk is to be expected for the correlating scenarios in the work place. Based on available data, the classification criteria for one of the categories of this hazard class are not met.
Fertility
NOAEL(fertility, oral, mouse, young animal/litter, sperm effects in F1 generation, OECD 416): 13.8 g/kg
NOAEL(fertility, oral, mouse, male, other effects in F1 generation, OECD 416): 21.5 g/kg
NOAEL(fertility, inhalative, rat, male, OECD 415): > 23 mg/L
For the assessment of the reproductive toxicity in the CSA, the values NOAEL: 13 800 mg/kgbw/d (oral) and NOAEC: 30 400 mg/m³ (inhalative) were used.
Teratogenicity
NOAEC(teratogenicity, inhalative, rat, OECD 414): > 20 000 ppm
NOAEL(teratogenicity, oral, rat, OECD 414): > 6.7 g/kg
NOAEL(teratogenicity, oral, mouse, OECD 414): 13.7 g/kg
Fetotoxicity
NOAEL(fetotoxicity, oral, rat, OECD 414): > 5.7 g/kg
Embryotoxicity
NOAEL(embryotoxicity, oral, rat, OECD 414): > 3.6 g/kg
Maternal toxicity
NOAEC(maternal, inhalativ, rat, OECD 414): > 3.6 g/kg 16 000 ppm
NOAEL(maternal) (oral, rat, OECD 414): 8.2 g/kg
NOAEL(maternal) (oral, mouse, OECD 414): < 2.2 g/kg
For the assessment of the developmental toxicity in the CSA, the values NOAEL: 5 200 mg/kgbw/d (oral) and NOAEC: 39 000 mg/m³ (inhalative) were used.
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Specific target organ toxicity - single exposure

Respiratory tract: No test data available
Cross reading from other short chain alcohols show that no significant irritation of the respiratory tract has to be expected.
Mucous membranes: No test data available.
Narcotic effects: No test data available.
Results of human toxicity studies based on the consumption of ethanol in alcoholic beverages cannot be used for the assessment of narcotic effects of ethanol as chemical in the work place.
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Specific target organ toxicity - repeated exposure

Neurotoxicity
NOEL (Neurotoxicity): (nominal): < 1 000 ppm
NOAEL (behavioural development): ≥ 1 600 mg/m³
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Aspiration hazard

No indication that the substance may pose aspiration toxicity.
Based on available data, the classification criteria for one of the categories of this hazard class are not met.

11.2 Toxicokinetics / routes of exposure

Absorption

Ethanol has a low molar mass, and is readily soluble as well in water as in fat. So it can be easily absorbed in the whole gastro-intestinal tract, in the lungs and from the skin. After ingestion ca. 90 % is incorporated via the gastro-intestinal tract. In the case of inhalative exposure, this value amounts to 61 %. Due to the rapid evaporation an intake through the skin is quite limited; theoretically 21 % can be absorbed, however, the absorption rate in the case of uncovered skin only amounts between 1 and 2 %.

Distribution

Independent from the route of exposure, ethanol distributes in the blood circulation of the whole body,

comparable with the distribution of water. Internal organs with good good circulation (brain, lung and liver) are rapidly flown through. An equilibrium between tissue and blood is adjusted after ca. 1 to 1.5 h.

Metabolism

Already prior to the absorption a small part of the ethanol will be enzymatically metabolized in the stomach (alcohol-dehydrogenase).

After absorption, Ethanol will be preferably metabolized in the liver (92 - 95%), partially also in the kidneys and in the lung.

The metabolization takes place in three stages:

1. Oxidation of ethanol to acetaldehyde
2. Oxidation of acetaldehyde to acetate
3. Oxidation of acetate to carbon dioxide and water.

Elimination

Most of the ethanol will be eliminated by the metabolism; less important is the secretion through respiratory air, urine and sweat. The maximum elimination of ethanol is estimated to 127 mg/kgbw/h.

11.3 Other information

Other information

Depending on the ingested amounts, a decrease of the inhibition threshold, euphoria but also dysphoria, aggressiveness, colonic motor dysfunction, interference of the responsiveness, vision disorders und tiredness may be induced.

SECTION 12: Ecological information

12.1 Ecological toxicity of Ethanol

Aquatic compartment and sediment

Fish

LC50 (24h, oncorhynchus mykiss, US EPA E03-05): 11 200 mg/L

LC50 (96h, oncorhynchus mykiss, OECD 203): 13 000 mg/L

NOEC (30d, QSAR, US-EPA E03-05): 245 mg/L

Crustaceans

LC50 (48h, daphnia magna, fresh water, ASTM E729-80): 12 340 mg/L

LC50 (48h, ceriodaphnia dubia, fresh water, ASTM E729-80): 5 012 mg/L

LC50 (24h, artemia salina, marine water, ASTM E729-80): 858 mg/L

EC50 (10d, ceriodaphnia dubia, fresh water, semi-static): 1 806 mg/L

NOEC (10d,ceriodaphnia dubia, fresh water, semi-static): 9.6 mg/L

LC50 (12d, palaemonetes pugio, marine water, SETAP): 530 mg/L

NOEC (12d, palaemonetes pugio, marine water, SETAP): 79 mg/L

Algae

EC50 (72h, chlorella vulgaris, fresh water, OECD 201): 275 mg/L

EC10 (72h, chlorella vulgaris, fresh water, OECD 201): 11.5 mg/L

EC50 (48h, selenastrum capricornutum, fresh water, OECD 201): 12 900 mg/L

EC50 (48h, selenastrum capricornutum, fresh water, OECD 201): 440 mg/L

EC50 (5d, skeletonema costatum, marine water, OPPTS 850.5400): 10 943 mg/L

NOEC (5d, skeletonema costatum, marine water, OPPTS 850.5400): 3 240 mg/L

EC50 (7d, lemma gibba, fresh water, EPA OPPTS 850.4400): 4 432 mg/L

NOEC (7d, lemma gibba, fresh water, EPA OPPTS 850.4400): 280 mg/L

Based on available data, the classification criteria for one of the categories of this hazard class are not met.

Sediment organisms

LC50 (18h, hyallela sp, non-guideline study): 8 200 mg/L

LC50 (18h, palaemonetes sp, non-guideline study): 10 100 mg/L

LC50 (18h, limit test): > 100 mg/L

Microbiological activity and impact on sewage treatment plants

EC50 (4h, paramaecium caudatum, non-guideline study): 5 800 mg/L

EC5 (48h, uronema parduzci, DIN 38412, part 8): 6 120 mg/L

EC5 (72h, entosiphon sulcatumi, DIN 38412, part 8): 65 mg/L

Terrestrial compartment

- Arthropods: No data available
- Other soil macro-organisms

LC50 (48h, eisenia fetida, non-guideline study): < 1 mg/cm²

Very low toxicity to earth-worms

- Plants
EC50 (6d, allium cepa, growth, non-guideline study): 11 800 mg/L
EC10 (6d, allium cepa, growth, non-guideline study): 790 mg/L
Relatively weak developed toxicity to plants.
Atmospheric compartment
- Ozone depleting potential: No ozone depleting potential.
- Other impacts: None known
Adverse impact on the food chain (secondary poisoning)
- Birds: No data available.
Direct or indirect exposition is unlikely.
- Mammalians: No data available.
Direct or indirect exposition is unlikely.

12.2 Persistence and degradability

Abiotic degradability

Hydrolysis: hydrolysis-resistant, t ½(20 °C, pH 7) >1 - < 36 a.
Photolysis: t ½(air) = 38 d
t ½(air, 100 ppm NO2) = 11.5 h

Biodegradability

Biodegradability in fresh water
Readily biodegradable
4d 8d 15d 28d
Degradation (%) 80 88 90 97 (OECD 301B)
Anaerobe degradability: Readily degradable (expert judgement)
Biodegradability in marine water
Inherent biodegradable
5d 10d 15d 28d
Degradation (%) 45 *) 68 72 75
*) Mixture of marine water and sewage, O2-consumption
Degradability in surface water and sediment: No data available.
Degradability in soil: No data available.

12.3 Bioaccumulation potential

Aquatic bioaccumulation

No test data available.
BCF = 3.2 (estimation based on a calculation method).
No remarkable bioaccumulation potential (log Kow < 4 and BCF < 500).

12.4 Mobility in soil

Adsorption/desorption

No data available.

Mobility/leaching

Henry constant: 3.3. 10-6 atm. M^3/mole, dimensionless: 1.38. 10-4 (calculation).

Distribution

Model calculation according to Mackay, EPIWIN:
air water soil sediment
45.00% 33.10% 13.70% 0.1 %.

12.5 Results of PBT and vPvB assessment

PBT assessment

Does not meet the PBT criteria according to annex XIII of Regulation (EC) No 1907/2006.

vPvB assessment

Does not meet the vPvB criteria according to annex XIII of Regulation (EC) No 1907/2006.

12.6 Other information

Chemical oxygen demand

COD = 1 900 mg/g

Biochemical oxygen demand

BOD5 = 1 000 mg/g

Further information

Without pre-treatment, the product should not be allowed to enter waters.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Do not dispose together with domestic waste. Avoid penetration into the sewage canal. Incineration recommended. The respective national and regional regulations have to be observed.

Contaminated packaging

Uncleaned empty package have to be treated like the content. The labelling of uncleaned containers must not be removed. Empty containers completely, if appropriate use water. Dispose rinsing- and cleaning water in compliance with local regulatory requirements. Non-contaminated containers can be used again. Damaged containers should be recycled. Packaging which cannot be cleaned has to be disposed like the product.

Further information

European waste list (EURAL) 07 01 04

SECTION 14: Transport information

Carriage by Road or Rail - ADR/RID

14.1 UN No: 1170
14.2 UN proper shipping name: Ethanol (Ethyl alcohol)
14.3 Transport hazard class: 3
14.4 Packaging group: II
14.5 Environmental hazards
Marine pollutant: -
14.6
Dangerous good label: 3
Tunnel category: (D/E)
Hazardous identification number: 33
Limited quantity (LQ): 1 L
Excepted quantity: E2
ERICard: 3-09
Emergency measures in the event of accident (IMO/IMDG)
In the case of fire: -
In the case of spillage: -

Carriage by Inland Waterways - ADN

14.1 UN No: 1170
14.2 UN proper shipping name: Ethanol (Ethyl alcohol)
14.3 Transport hazard class: 3
14.4 Packaging group: II
14.5 Environmental hazards
Marine pollutant: -
Hazards for tank vessels: 3
14.6
Dangerous good label: 3
Tunnel category: -
Hazardous identification number: -
Limited quantity (LQ): 1 L
Excepted quantity: E2
ERICard: -
Emergency measures in the event of accident (IMO/IMDG)
In the case of fire: -
In the case of spillage: -

Marine Transport - IMO/IMDG

14.1 UN No: 1170
14.2 UN proper shipping name: Ethanol (Ethyl alcohol)
14.3 Transport hazard class: 3
14.4 Packaging group: II
14.5 Environmental hazards:
Marine pollutant: No
14.6
Dangerous good label: 3
Tunnel category: -
Hazardous identification number: -
Limited quantity (LQ): 1 L
Excepted quantity: E2

ERICard: -
Emergency measures in the event of accident (IMO/IMDG)
In the case of fire: Echo (F-E)
In the case of spillage: Delta (S-D)
Transport by Air - IATA/ICAO
14.1 UN No: 1170
14.2 UN proper shipping name: Ethanol (Ethyl alcohol)
14.3 Transport hazard class: 3

14.4 Packaging group: II
14.5 Environmental hazards
Marine pollutant: -
14.6
Dangerous good label: 3
Tunnel category: -
Hazardous identification number: -
Limited quantity (LQ): 1 L
Excepted quantity: E2
ERICard: -
Emergency measures in the event of accident (IMO/IMDG)
In the case of fire: -
In the case of spillage: -
14.7 Special precaution for user
Individual transport
In the case of conveyance in cars: Observe national regulations or guidelines.
Conveyance either within or outside the premises
No additional measures necessary.
14.8 Transport in bulk
Transport in bulk according to Annex II of Marpol and the IBC Code
Not within the scope of MARPOL
Required ship type
Not applicable.
Pollution category
Z
14.9 Other information
Sample shipment
In the case of sample shipment, specific transport conditions of the service provider have to be observed (when required).

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Ozone layer depleting substances/mixture
Not subject to Regulation (EC) No 1005/2009.
Persistent organic pollutants (POPs)
Not subject to Regulation (EC) No 850/2004.
Export and import of dangerous chemicals
Not subject to Regulation (EC) No 649/2012.
Detergents Regulation
Not subject to Regulation (EC) No 648/2004.
Authorisations (REACH)
Not subject to Title VII of Regulation (EC) No 1907/2006
Restrictions (REACH), SVHC
No restrictions according to Title VIII of Regulation (EC) No 1907/2006.
SVHC status (Substance of Very High Concern): negative
Control of major-accident hazards (COMAH, Seveso II)
Subject to Directive 2012/18/EU: P5c Flammable Liquids
Quantity threshold value column 1: 5 000 000 kg
Quantity threshold value column 2: 50 000 000 kg
Other regulations

Additional national regulations have to be observed.

15.2 Chemical safety assessment

For this product a chemical safety assessment was carried out.
Commission Regulation (EU) No. 453/2010 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

SECTION 16: Other information

16.1 Information on revision

Reason for changes

Update after ILT inspection
ILT = Inspection Environment and Transport of the Netherlands, department : Dangerous Goods.

Flag of the changes

Due to the new layout and the variety of changes, revised sections have been left unlabelled.

16.2 Abbreviations and acronyms

CAS Chemical Abstracts Service (Division der American Chemical Society)
CLP Classification, Labelling and Packaging
CSA Chemical Safety Assessment
CSR Chemical Safety Report
DNEL Derived No Effect Level
DMEL Derived Minimal Effect Level
EC50 Effect Concentration, 50 percent
EC-Number EINECS-, ELINCS- or CLP-Number
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
ERICard Emergency Response Intervention Card
GHS / CLP Globally Harmonised System / Classification, Labelling and Packaging
IC50 Inhibitory Concentration, 50 percent
LC50 Lethal Concentration, 50 percent
LD50 Lethal Dose, 50 percent
NOAEC No observed adverse effect concentration
NOAEL No observed adverse effect level
NOEL No observed effect level
PBT Persistent, Bioaccumulative and Toxic
PNEC Predicted No Effect Concentration
ppm Parts per million
TLV Threshold Limit Value
TWA Time Weighted Average
vPvB very persistent and very bioaccumulative

16.3 Literature references and sources for data

Chemical Safety Report, CSR1, Royal Nedalco, Nederland, Sas van Gent, Nov. 2010.
IUCLID, International Uniform Chemical Database (European Commission)
GESTIS Stoffdatenbank des berufsgenossenschaftlichen Instituts für Arbeitssicherheit - BIA.
Merkblätter BG RCI
"Alkohol" Ethanol, Peter Bützer, August 2002

16.5 Other information relating to Regulation 1272/2008

Specific concentration limits: According to the available data, a specific concentration limit of 50% can be applied to the classification of mixtures containing this substance for the eye irritancy classification end point. Date of first issue 07-04-2016. Supersedes date 21-09-2017

Revision information

Appendix 1

Full text of the sectors of use (ECHA-2010-G-05-EN 26/03/2010)

Full text of the sectors of use

SU1 Agriculture, forestry, fishery
SU2a Mining (without offshore industries)
SU2b Offshore industries
SU4 Manufacture of food products
SU5 Manufacture of textiles, leather, fur
SU6a Manufacture of wood and wood products
SU6b Manufacture of pulp, paper and paper products

SU7 Printing and reproduction of recorded media
SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
SU9 Manufacture of fine chemicals
SU11 Manufacture of rubber products
SU12 Manufacture of plastics products, including compounding and conversion
SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement
SU14 Manufacture of basic metals, including alloys.
SU15 Manufacture of fabricated metal products, except machinery and equipment
SU16 Manufacture of computer, electronic and optical products, electrical equipment
SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU18 Manufacture of furniture
SU19 Building and construction work
SU20 Health services
SU23 Electricity, steam, gas water supply and sewage treatment
SU24 Scientific Research and Development
SU0 Other

Full text of the process categories

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions. PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions.
PROC4 Chemical production where opportunity for exposure arises
PROC5 Mixing or blending in batch processes
PROC6 Calendering operations
PROC7 Industrial spraying
PROC8a Transfer of substance or mixture (charging/discharging) at non dedicated facilities
PROC8b Transfer of substance or mixture (charging/discharging) at dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC10 Roller or brushing application
PROC11 Non industrial spraying
PROC12 Use of blow agents in manufacture of foam
PROC13 Treatment of articles by dipping and pouring
PROC14 Tabletting, compression, extrusion, pelletisation, granulation
PROC15 Use a laboratory reagent
PROC16 Use of fuels
PROC17 Lubrication at high energy conditions in metal working operations
PROC18 General greasing/lubrication at high kinetic energy conditions
PROC19 Manual activities involving hand contacts
PROC20 Use of functional fluids in small devices
PROC21 Low energy manipulation and handling of substances bound in/on materials or articles
PROC22 Manufacturing and processing of minerals and/or metals at substantially elevated temperature
PROC23 Open processing and transfer operations at elevated substantially elevated temperature
PROC24 High (mechanical) energy work-up of substances bound in/on materials and/or articles
PROC25 Other hot work operations with metals
PROC26 Handling of solid inorganic substances at ambient temperature
PROC27a Production of metal powders (hot processes)
PROC27b Production of metal powders (wet processes)
PROC28 Manual maintenance (cleaning and repair) of machinery
PROC0 Other

Full text of the product categories

PC1 Adhesives, sealants
PC2 Adsorbents
PC3 Air care producst
PC4 Anti-Freeze and de-icing products
PC7 Base metals or alloy
PC8 Biocidal products

PC9a Coating or paints, thinners, paint removers
PC9b Fillers, putties, plasters, modelling clay
PC9c Finger paints
PC11 Explosives
PC12 Fertilizers
PC13 Fuels
PC14 Metal surface treatment products
PC15 Non-metal-surface treatment products
PC16 Heat transfer fluids
PC17 Hydraulic fluids
PC18 Ink and toners
PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
PC21 Laboratory chemicals
PC23 Leather treatment products
PC24 Lubricants, greases, release products
PC25 Metal working fluids
PC26 Paper and board treatment products
PC27 Plant protection products
PC28 Perfumes, fragrance
PC29 Pharmaceuticals
PC30 Photo-chemicals
PC31 Polishes and wax blends
PC32 Polymer preparations and compounds
PC33 Semiconductors
PC34 Textile dyes, and impregnating products
PC35 Washing and cleaning products
PC36 Water softeners
PC37 Water treatment chemicals
PC38 Welding and soldering products, flux products
PC39 Cosmetics, personal care products
PC40 Extraction agents
PC41 Oil and gas exploration or production products
PC42 Electrolytes for batteries
PC0 Other

Full text of the environmental release categories
ERC1 Manufacture of the substance
ERC2 Formulation into mixture
ERC3 Formulation into solid matrix
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC5 Use at industrial site leading to inclusion into/onto article
ERC6a Use of intermediate
ERC6b Use of reactive processing aids at industrial site (no inclusion into or onto article)
ERC6c Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)
ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)
ERC7 Use of functional fluid at industrial site
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC8c Widespread use leading to inclusion into or onto article (indoor)
ERC8d Widespread use of non -reactive processing aid (no inclusion into or onto article, outdoor)
ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
ERC8f Widespread use leading to inclusion into or onto article (outdoor)
ERC9a Widespread use of functional fluid (indoor)
ERC9b Widespread use of functional fluid (outdoor)
ERC10a Widespread use of articles with low release (outdoor)
ERC10b Widespread use of articles with high release or intended release (outdoor)
ERC11a Widespread use of articles with low release (indoor)
ERC11b Widespread use of articles with high release or intended release (indoor)

ERC12a Processing of articles at industrial sites with low release
ERC12b Processing of articles at industrial sites with high release
ERC12c Use of articles at industrial sites with low release

Appendix 2 Emergency numbers

Medical information - Poisons Centres
Austria +43 (0) 1 406 43 43 - Vergiftungsinformationszentrale (Poisons Information Centre)
Belgium +32 (0) 70 245 245 - Centre Antipoisons-Antigifcentrum
Denmark +45 82 12 12 12 - Poison Information Center
Finland +358 9 471977 - Finnish Poison Information Centre
France +33 1 45 42 59 59 - ORFILA (INRS)
Germany +49 228 192 40 - Poison Center Bonn
Ireland +353 1 837 9964 - Poisons Information Centre of Ireland for medical professionals
+353 1 809 2166 - (public)
Luxembourg see Belgium
Netherlands +31 30 274 88 88 - National Poisons Information Centre
Norway +47 22 59 13 00 - Norwegian Poisons Information Centre
Poland +48 71 343 30 08 - Lower Silesian Poisons and Toxicilogical Information Centre, Wroclaw
+48 22 619 66 54 - Warsaw Poison Information and Control Centre
Sweden +46 8 33 12 31 / 112 - Giftinformationscentralen (Swedish Poisons Information Centre)
Switzerland +41 44 251 51 51 - Swiss Toxicological Information Centre (in Switzerland dial 145)
United Kingdom England - 844 892 0111 - National Poisons Information Service (Birmingham)
Wales - 844 892 0111 - National Poisons Information Service (Cardiff)
Scotland - 844 892 0111 - National Poisons Information Service (Edinburgh)

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