

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : Bio lighter gel orange
Revision date : 30.04.2019
Print date : 02-05-2019

Version (Revision) : 1.0.2 (1.0.1)

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

1.1 Product identifier

Bio lighter gel orange (143015)

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

Relevant identified uses

Bio Lighter gel for barbecue and fire place. Consumer uses: Private households (= general public = consumers)

Uses advised against

This product should not be used for purposes other than the applications referred to above.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Sel Chemie BV

Street : Broekstraat 23

Postal code/city : 7122 MN Aalten

Telephone : +31 (0)543-471956

Information contact : Email: MSDS@selchemie.com

1.4 Emergency telephone number

Members of the public seeking specific information on poisons should contact: In England and Wales: NHS 111 - dial 111, in Scotland: NHS 24 - dial 111 Ireland +353 (0)1 8092566 or +353 (0)1 8379964 National Poisons Information Centre

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2 ; Causes serious eye irritation.

Flam. Liq. 2 ; H225 - Flammable liquids : Category 2 ; Highly flammable liquid and vapour.

2.2 Label elements

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

Hazard pictograms



Flame (GHS02) · Exclamation mark (GHS07)

Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

P101 If medical advice is needed, have product container or label at hand.

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.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403+P235 Store in a well-ventilated place. Keep cool.

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P501 Dispose of contents/container in accordance with local / national regulations.

2.3 Other hazards

This material can accumulate static charge by flow or agitation and can be ignited by static discharge. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

ETHANOL ; REACH registration No. : 01-2119457610-43 ; EC No. : 200-578-6; CAS No. : 64-17-5

Weight fraction : $\geq 75 - < 90$ %

Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH

None

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH

None

Additional information

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Observe risk of aspiration if vomiting occurs. If unconscious place in recovery position and seek medical advice. If breathing is irregular or stopped, administer artificial respiration. Remove casualty to fresh air and keep warm and at rest.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In all cases of doubt, or when symptoms persist, seek medical attention.

In case of skin contact

Wash immediately with: Water In all cases of doubt, or when symptoms persist, seek medical attention. Change contaminated, saturated clothing. Wash contaminated clothing prior to re-use.

After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In all cases of doubt, or when symptoms persist, seek medical attention.

After ingestion

Rinse mouth thoroughly with water. Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

The following symptoms may occur: Headache Dizziness Nausea Diminished responsiveness Danger of irritation to eyes, nose, throat and the air passages. depression of central nervous system Cardiac arrhythmias Drowsiness Vomiting Dilated pupils

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 mist alcohol resistant foam ABC-powder BC-powder Carbon dioxide (CO2)

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Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide Carbon dioxide (CO₂)

5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. Remove all sources of ignition. Use only antistatically equipped (spark-free) tools.

For non-emergency personnel

Protective equipment

Use personal protection equipment. Wear closed protection glasses. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Emergency procedures

If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

6.2 Environmental precautions

Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Use foam on spills to minimise vapours. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up

For cleaning up

Suitable material for taking up: Sand Kieselguhr Limestone powder Collect in closed and suitable containers for disposal. Delivery to an approved waste disposal company. The contaminated area should be cleaned up immediately with: Water

6.4 Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage



7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Use only antistatically equipped (spark-free) tools. Provide earthing of containers, equipment, pumps and ventilation facilities. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Measures to prevent aerosol and dust generation

During filling, metering and sampling should be used if possible: Closed devices

Environmental precautions

Do not empty into drains.

Specific requirements or handling rules

Remove contaminated, saturated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

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Protect against direct sunlight. Keep container tightly closed in a cool, well-ventilated place. Ensure adequate ventilation of the storage area. Suitable container/equipment material: Stainless steel Aluminium Iron. Unsuitable container/equipment material: No data available

Hints on joint storage

Keep away from

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Oxidizing agent Strong acid

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

ETHANOL ; CAS No. : 64-17-5

Limit value type (country of origin) : Exposure Limit (8h) (NL)

Limit value : 260 mg/m³ / 136 ppm

Remark : H

Version : 01-01-2007

Limit value type (country of origin) : Exposure Limit (15min) (NL)

Limit value : 1900 mg/m³ / 992 ppm

Remark : H

Version : 01-01-2007

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type : DNEL Consumer (systemic) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Inhalation

Exposure frequency : Long-term (repeated)

Limit value : 114 mg/m³

Limit value type : DNEL Consumer (systemic) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

Limit value : 206 Mg/kg bw/day

Limit value type : DNEL Consumer (systemic) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Oral

Exposure frequency : Long-term (repeated)

Limit value : 87 Mg/kg bw/day

Limit value type : DNEL worker (local) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 1900 mg/m³

Limit value type : DNEL worker (systemic) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Inhalation

Exposure frequency : Long-term (repeated)

Limit value : 950 mg/m³

Limit value type : DNEL worker (systemic) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

Limit value : 343 Mg/kg bw/day

PNEC

Limit value type : PNEC (Aquatic, freshwater) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Water

Limit value : 0,96 mg/l

Limit value type : PNEC (Aquatic, intermittent release) (ETHANOL ; CAS No. : 64-17-5)

Exposure route : Water

Limit value : 2,75 mg/l

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Limit value type :	PNEC (Aquatic, marine water) (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Water
Limit value :	0,79 mg/l
Limit value type :	PNEC (Sediment, freshwater) (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Sediment
Limit value :	3,6 mg/kg
Limit value type :	PNEC (Sediment, marine water) (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Sediment
Limit value :	2,9 mg/kg
Limit value type :	PNEC soil, freshwater (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Soil
Limit value :	0,63 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Water (Including sewage plant)
Limit value :	580 mg/l

8.2 Exposure controls

Appropriate engineering controls

Use only in well-ventilated areas. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Provide earthing of containers, equipment, pumps and ventilation facilities. Use only antistatically equipped (spark-free) tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Personal protection equipment



Eye/face protection



Suitable eye protection

Eye glasses with side protection

Skin protection

Hand protection



Suitable gloves type : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Suitable material : Butyl caoutchouc (butyl rubber) Tetrafluoroethylene

Unsuitable material : NR (natural rubber, natural latex) PVA (Polyvinyl alcohol) PVC (Polyvinyl chloride)

Required properties : liquid-tight.

Remark : DIN-/EN-Norms DIN EN 420 DIN EN 374

Body protection

Protective clothing. Chemical resistant safety shoes

Remark : Immediately remove any contaminated clothing, shoes or stockings. Wash contaminated clothing prior to re-use.

Respiratory protection

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If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
Suitable respiratory protection apparatus Full-/half-/quarter-face masks (DIN EN 136/140) Filtering device (full mask or mouthpiece) with filter: A

General health and safety measures

Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Paste

Colour : orange

Odour : Alcohol

Safety relevant basis data

Melting point/melting range :		No data available
Freezing point :	(1013 hPa)	No data available
Initial boiling point and boiling range :	(1013 hPa)	No data available
Decomposition temperature :		No data available
Flash point :		10 - 15 °C
Ignition temperature :		No data available
Lower explosion limit :		No data available
Upper explosion limit :		No data available
Vapour pressure :	(20 °C)	No data available
Evaporation rate :		No data available
Density :	(15 °C)	0,851 - 0,871 g/cm ³
Water solubility :	(20 °C)	100 Wt %
pH :		No data available
log P O/W :		No data available
Viscosity :	(20 °C)	No data available
Relative vapour density :	(20 °C)	No data available
Flammable gases :	No data available.	
Oxidising liquids :	Not oxidising.	
Explosive properties :	Not applicable.	

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

10.2 Chemical stability

Stable under normal conditions of use

10.3 Possibility of hazardous reactions

Violent reaction with: Oxidising agent, strong. Strong acid

10.4 Conditions to avoid

This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Keep away from sources of ignition - No smoking. Use only antistatically equipped (spark-free) tools.

10.5 Incompatible materials

Violent reaction with: Oxidizing agent. Strong acid

10.6 Hazardous decomposition products

Carbon monoxide Carbon dioxide.



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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter : LD50 (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Oral
Species : Rat
Effective dose : 10470 mg/kg bw
Method : OECD 401

Acute inhalation toxicity

Parameter : LC50 (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Inhalation
Species : Rat
Effective dose : 124,7 mg/l
Exposure time : 4 h
Method : OECD 403

Irritant and corrosive effects

Primary irritation to the skin

Parameter : Primary irritation to the skin (ETHANOL ; CAS No. : 64-17-5)
Species : Rabbit
Exposure time : 24 h
Result : Not an irritant
Method : OECD 404
Result : Not an irritant.

Irritation to eyes

Parameter : Irritation to eyes (ETHANOL ; CAS No. : 64-17-5)
Species : Rabbit
Exposure time : 14 day
Result : Irritant
Method : OECD 405
Result : Causes serious eye irritation.

Sensitisation

In case of skin contact

Parameter : Skin sensitisation (ETHANOL ; CAS No. : 64-17-5)
Species : Mouse
Result : Not sensitising.
Method : OECD 429

In case of inhalation

Parameter : Sensitisation to the respiratory tract (ETHANOL ; CAS No. : 64-17-5)
Result : Not sensitising.

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

Parameter : LOAEL(C) (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Oral
Species : Rat
Effective dose : 3160 mg/kg
Exposure time : 98 day
Method : OECD 408

Subacute inhalation toxicity

Parameter : LOAEC (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Inhalation
Species : Rat
Effective dose : 1,3 mg/l

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Additional information

Specific effects: Frequently or prolonged contact with skin may cause dermal irritation. Gastrointestinal complaints Causes damage to liver through prolonged or repeated exposure if swallowed. May cause damage to heart through prolonged or repeated exposure if swallowed. Ingestion causes nausea, weakness and central nervous system effects.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Parameter :	NOAEL(C) (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Oral
Species :	Rat
Effective dose :	> 3000 Mg/kg bw/day
Exposure time :	728 day
Test result :	Negative.
Method :	OECD 451
Parameter :	NOAEC (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	>= 1,3 ppm
Exposure time :	728
Test result :	Negative.
Method :	OECD 453

Assessment/classification

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Germ cell mutagenicity

In vitro mutagenicity

Parameter :	Gene-mutations mammalian cells (ETHANOL ; CAS No. : 64-17-5)
Species :	Mouse lymphoma cells
Test result :	Negative.
Method :	OECD 476

In vivo mutagenicity

Parameter :	Chromosomal aberrations (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Oral
Species :	Mouse
Exposure time :	5 day
Test result :	Negative.
Method :	OECD 478

Assessment/classification

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Reproductive toxicity

Adverse effects on sexual function and fertility

Parameter :	NOAEL(C) (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Oral
Species :	Mouse
Effective dose :	20700 mg/kg
Exposure time :	118 day
Test result :	Negative.
Method :	OECD 416

Adverse effects on developmental toxicity

Parameter :	NOAEL(C) (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	>= 20000 ppm
Exposure time :	20 day
Test result :	Negative.
Method :	OECD 414

Assessment/classification

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This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

12.1 Toxicity

The substance/mixture does not fulfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Pimephales promelas (fathead minnow)
Effective dose : 15300 mg/l
Exposure time : 96 h

Chronic (long-term) fish toxicity

Parameter : ChV (ETHANOL ; CAS No. : 64-17-5)
Species : Fish
Effective dose : 245 mg/l
Exposure time : 30 day

Acute (short-term) daphnia toxicity

Parameter : LC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Ceriodaphnia dubia
Effective dose : 5012 mg/l
Exposure time : 48 h

Chronic (long-term) daphnia toxicity

Parameter : NOEC (ETHANOL ; CAS No. : 64-17-5)
Species : Daphnia magna (Big water flea)
Effective dose : 9,6 mg/l
Exposure time : 9 day

Acute (short-term) algae toxicity

Parameter : EC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Chlorella vulgaris
Effective dose : 275 mg/l
Exposure time : 3 day
Method : OECD 201

Bacteria toxicity

Parameter : EC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Paramecium caudatum
Effective dose : 5800 mg/l
Exposure time : 4 h

12.2 Persistence and degradability

Abiotic degradation

Photo-chemical elimination

Parameter : Photo-chemical elimination (ETHANOL ; CAS No. : 64-17-5)
Species : Photo-chemical elimination
Effective dose : 500000 cm³
Exposure time : 40 h

Biodegradation

Parameter : Biodegradation (ETHANOL ; CAS No. : 64-17-5)
Inoculum : Degree of elimination
Effective dose : 84 %
Exposure time : 20 day
Evaluation : Biodegradable.
Biodegradable.

12.3 Bioaccumulative potential

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Parameter : Bioconcentration factor (BCF) (ETHANOL ; CAS No. : 64-17-5)
Cyprinus carpio (Common Carp)
Concentration : 1 - 4,5
72 h
Parameter : Partition coefficient n-octanol /water (log P O/W) (ETHANOL ; CAS No. : 64-17-5)
Concentration : -0,35

Assessment/classification

No indication of bioaccumulation potential.

12.4 Mobility in soil

Adsorption/Desorption

Parameter : Soil (ETHANOL ; CAS No. : 64-17-5)
Effective dose : 13,7 %
Parameter : Water (ETHANOL ; CAS No. : 64-17-5)
Effective dose : 33,1 %
Parameter : Air (ETHANOL ; CAS No. : 64-17-5)
Effective dose : 53,2 %
Parameter : Sediment (ETHANOL ; CAS No. : 64-17-5)
Effective dose : 0,1 %

Assessment/classification

If product enters soil, it will be mobile and may contaminate groundwater.

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

Contains the following fluorinated greenhous gas (chemical name): None

Contains the following substances that deplete the ozone layer: None

If product enters soil, it will be mobile and may contaminate groundwater.

12.7 Additional ecotoxicological information

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Delivery to an approved waste disposal company. Handle contaminated packages in the same way as the substance itself. Do not allow to enter into surface water or drains.

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code : 15 01 02* plastic packaging

Waste code : 15 01 10* packaging containing residues of or contaminated by dangerous substances

Waste code : 13 07 03* other fuels (including mixtures)

SECTION 14: Transport information

14.1 UN number

UN 1170

14.2 UN proper shipping name

Land transport (ADR/RID)

ETHANOL, SOLUTION

Sea transport (IMDG)

ETHANOL, SOLUTION

Air transport (ICAO-TI / IATA-DGR)

ETHANOL, SOLUTION

14.3 Transport hazard class(es)

Land transport (ADR/RID)

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Class(es) : 3
Classification code : F1
Hazard identification number (Kemler No.) : 33
Tunnel restriction code : D/E
Special provisions : LQ 1 I · E 2
Hazard label(s) : 3
Sea transport (IMDG)
Class(es) : 3
EmS-No. : F-E / S-D
Special provisions : LQ 1 I · E 2
Hazard label(s) : 3
Air transport (ICAO-TI / IATA-DGR)
Class(es) : 3
Special provisions : E 2
Hazard label(s) : 3

14.4 Packing group

II

14.5 Environmental hazards

Land transport (ADR/RID) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

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

EU legislation

Other regulations (EU)

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) The product is classified and labelled according to EC directives or corresponding national laws.

Directive 2010/75/EU on industrial emissions

This chemical is a VOC according to 2010/75/EC.

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

This chemical is a VOC according to 2004/42/EC.

National regulations

Water hazard class (WGK)

slightly hazardous to water (WGK 1) Classification according to VwVwS, Annex 4.

15.2 Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

16.1 Indication of changes

None

16.2 Abbreviations and acronyms

a.i. = Active ingredient

ACGIH = American Conference of Governmental Industrial Hygienists (US)

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

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AFFF = Aqueous Film Forming Foam
AISE = International Association for Soaps, Detergents and Maintenance Products (joint project of AISE and CEFIC)
AOAC = AOAC International (formerly Association of Official Analytical Chemists)
aq. = Aqueous
ASTM = American Society of Testing and Materials (US)
atm = Atmosphere(s)
B.V. = Beperkt Vennootschap (Limited)
BCF = Bioconcentration Factor
bp = Boiling point at stated pressure
bw = Body weight
ca = (Circa) about
CAS No = Chemical Abstracts Service Number (see ACS - American Chemical Society)
CEFIC = European Chemical Industry Council (established 1972)
CIPAC = Collaborative International Pesticides Analytical Council
CLP = REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Conc = Concentration
cP = CentiPoise
cSt = Centistokes
d = Day(s)
DIN = Deutsches Institut für Normung e.V.
DNEL = Derived No-Effect Level
DT50 = Time for 50% loss; half-life
EbC50 = Median effective concentration (biomass, e.g. of algae)
EC = European Community; European Commission
EC50 = Median effective concentration
EINECS = European Inventory of Existing Commercial Chemical Substances (EU, outdated, now replaced by EC Number)
ELINCS = European List of Notified (New) Chemicals (see Tab 7, Background - Guide)
ErC50 = Median effective concentration (growth rate, e.g. of algae)
EU = European Union
EWC = European Waste Catalogue
FAO = Food and Agriculture Organization (United Nations)
GIFAP = Groupement International des Associations Nationales de Fabricants de Produits Agrochimiques (now CropLife International)
h = Hour(s)
hPa = HectoPascal (unit of pressure)
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Concentration that produces 50% inhibition
IMDG Code = International Maritime Dangerous Goods Code
IMO = International Maritime Organization
ISO = International Organization for Standardization
IUCLID = International Uniform Chemical Information Database
IUPAC = International Union of Pure and Applied Chemistry
kg = Kilogram
Kow = Distribution coefficient between n-octanol and water
kPa = KiloPascal (unit of pressure)
LC50 = Concentration required to kill 50% of test organisms
LD50 = Dose required to kill 50% of test organisms
LEL = Lower Explosive Limit/Lower Explosion Limit
LOAEL = Lowest observed adverse effect level
mg = Milligram
min = Minute(s)
ml = Milliliter
mmHg = Pressure equivalent to 1 mm of mercury (133.3 Pa)
mp = Melting point
MRL = Maximum Residue Limit
MSDS = Material Safety Data Sheet
n.o.s. = Not Otherwise Specified
NIOSH = National Institute for Occupational Safety and Health (US)
NOAEL = No Observed Adverse Effect Level
NOEC = No observed effect concentration

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : Bio lighter gel orange
Revision date : 30.04.2019
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Version (Revision) : 1.0.2 (1.0.1)

NOEL = No Observable Effect Level
NOx = Oxides of Nitrogen
OECD = Organization for Economic Cooperation and Development
OEL = Occupational Exposure Limits
Pa = Pascal (unit of pressure)
PBT = Persistent, Bioaccumulative or Toxic
pH = -log10 hydrogen ion concentration
pKa = -log10 acid dissociation constant
PNEC = Previsible Non Effect Concentration
POPs = Persistent Organic Pollutants
ppb = Parts per billion
PPE = Personal Protection Equipment
ppm = Parts per million
ppt = Parts per trillion
PVC = Polyvinyl Chloride
QSAR = Quantitative Structure-Activity Relationship
REACH = Registration, Evaluation and Authorization of Chemicals (EU, see NCP)
SI = International System of Units
STEL = Short-Term Exposure Limit
tech. = Technical grade
TSCA = Toxic Substances Control Act (US)
TWA = Time-Weighted Average
vPvB = Very Persistent and Very Bioaccumulative
WHO = World Health Organization = OMS
y = Year(s)

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

16.5 Relevant H- and EUH-phrases (Number and full text)

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.