

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

TOYOTOMI
Premium heating liquids

Trade name : Clear
Revision date : 18.11.2019
Print date : 27-11-2019

Version : 1.0.0

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

1.1 Product identifier

Clear (Clear)

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

Relevant identified uses

Fuel for mobile space heaters. 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)

Toyotomi Europe Sales B.V.

Street : Huygensweg 10

Postal code/city : 5466 AN Veghel

Telephone : +31 (0)413-820295

Telefax :

Information contact : Email: info@toyotomi.eu

1.4 Emergency telephone number

+32 (0)14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Asp. Tox. 1 ; H304 - Aspiration hazard : Category 1 ; May be fatal if swallowed and enters airways.

2.2 Label elements

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

Hazard pictograms



Health hazard (GHS08)

Signal word

Danger

Hazard components for labelling

HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS

HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS

Hazard statements

H304 May be fatal if swallowed and enters airways.

Precautionary statements

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

P102 Keep out of reach of children.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P405 Store locked up.

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

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Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

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. Inhalation of dust may cause irritation of the respiratory system. Repeated exposure may cause skin dryness or cracking.

2.4 Additional information

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS ; REACH registration No. : 01-2119456620-43 ; INDEX No. : 649-422-00-2

Weight fraction : $\geq 20 - \leq 80$ %
Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304

HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; REACH registration No. : 01-2120085325-55 ; CAS No. : 1809170-78-2

Weight fraction : $\geq 20 - \leq 80$ %
Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304

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.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. First aider: Pay attention to self-protection! Use suitable breathing apparatus. If breathing is irregular or stopped, administer artificial respiration. Call a physician in any case!

In case of skin contact

Wash immediately with: Water and soap 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 case of eye irritation consult an ophthalmologist.

After ingestion

Call a physician in any case! Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Harmful: may cause lung damage if swallowed. Treat symptomatically.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water mist Foam Extinguishing powder Carbon dioxide (CO₂)

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Do not breathe gas/fumes/vapour/spray. Carbon monoxide Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

5.4 Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Emergency procedures

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

6.2 Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. 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 containment

Collect in closed and suitable containers for disposal.

For cleaning up

Suitable material for taking up: Sand Absorbing material, organic

6.4 Reference to other sections

See protective measures under point 7 and 8. Disposal: see section 13

SECTION 7: Handling and storage



7.1 Precautions for safe handling

Avoid contact with skin, eyes and clothes. Special danger of slipping by leaking/spilling product. This material can accumulate static charge by flow or agitation and can be ignited by static discharge.

Protective measures

Measures to prevent fire

Vapours are heavier than air, spread along floors and form explosive mixtures with air. Provide earthing of containers, equipment, pumps and ventilation facilities.

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Measures to prevent aerosol and dust generation

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

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place. Suitable container/equipment material: Stainless steel
Polyethylene (PE) Unsuitable container/equipment material: Butyl caoutchouc (butyl rubber)

7.3 Specific end use(s)

Fuel for mobile space heaters.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS

Limit value type (country of origin) : RCP - TWA (GLOB)

Parameter : Vapour. Total Hydrocarbons

Limit value : 1200 mg/m³ / 165 ppm

Remark : Source: Supplier

Version : 08-10-2018

HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2

Limit value type (country of origin) : RCP - TWA (GLOB)

Parameter : Vapour. Total Hydrocarbons

Limit value : 1050 mg/m³

Version : 12-08-2014

8.2 Exposure controls

Appropriate engineering controls

Use only in well-ventilated areas. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

Personal protection equipment

Eye/face protection



Suitable eye protection

Eye glasses with side protection

Remark

DIN-/EN-Norms DIN EN 166

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 : NBR (Nitrile rubber)

Required properties : liquid-tight.

Breakthrough time (maximum wearing time) : >480min

Thickness of the glove material : 0,38mm

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

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Body protection

Protective clothing.

Remark : Immediately remove any contaminated clothing, shoes or stockings. Wash contaminated clothing prior to re-use. DIN-/EN-Norms DIN EN 14605

Respiratory protection

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) Particle filter device (DIN EN 143). Filtering Half-face mask (DIN EN 149) Combination filtering device (EN 14387) Filter type: A

General health and safety measures

Wash hands before breaks and after work.

Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Liquid
Colour : Nach nationalem Steuerrecht
Odour : characteristic

Safety relevant basis data

Melting point/melting range :		Not technically feasible
Initial boiling point and boiling range :	(1013 hPa)	203 - 261 °C
Decomposition temperature :		No data available
Freezing point :	<	-25 °C
Flash point :		79 °C
Ignition temperature :	>	200 °C
Lower explosion limit :		0,5 Vol-%
Upper explosion limit :		7 Vol-%
Vapour pressure :	(20 °C)	0,2 hPa
Density :	(15 °C)	0,763 - 0,804 g/cm ³
Water solubility :	(20 °C)	Negligible
pH :		Not technically feasible
log P O/W :		4 - 7
Viscosity :	(40 °C)	1,68 - 1,8 cSt
Odour threshold :		No data available
Relative vapour density :	(20 °C)	No data available
Flammable solids :		Not technically feasible
Flammable gases :		Not technically feasible
Oxidising liquids :		No data available.
Explosive properties :		Not applicable.

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

Stable under normal conditions of use

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10.3 Possibility of hazardous reactions

Strong oxidizers

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.

10.5 Incompatible materials

Strong oxidizers

10.6 Hazardous decomposition products

Does not decompose when used for intended uses. at room temperature

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter : LD50 (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)

Exposure route : Oral

Species : Rat

Effective dose : > 5000 mg/kg

Method : OECD 401

Parameter : LD50 (HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2)

Exposure route : Oral

Species : Rat

Effective dose : > 5000 mg/kg

Acute dermal toxicity

Parameter : LD50 (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)

Exposure route : Dermal

Species : Rabbit

Effective dose : > 5000 mg/kg

Method : OECD 402

Parameter : LD50 (HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2)

Exposure route : Dermal

Species : Rabbit

Effective dose : > 5000 mg/kg

Method : OECD 402

Acute inhalation toxicity

Parameter : LC50 (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)

Exposure route : Inhalation

Species : Rat

Effective dose : > 5000 mg/m³

Exposure time : 8 h

Method : OECD 403

Irritant and corrosive effects

Primary irritation to the skin

slightly irritant but not relevant for classification.

Irritation to eyes

slightly irritant

Irritation to respiratory tract

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Not irritating to respiratory system.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

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

Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

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

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc.

11.3 Symptoms related to the physical, chemical and toxicological characteristics

In case of ingestion

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LLO (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)
Species : Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : 1000 mg/l
Exposure time : 96 h

Acute (short-term) daphnia toxicity

Parameter : EL0 (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : 1000 mg/l
Exposure time : 48 h

Parameter : EL50 (HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2)

Species : Acute (short-term) algae toxicity
Effective dose : > 100 mg/l

Parameter : EL50 (HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2)

Species : Acute (short-term) daphnia toxicity
Effective dose : > 100 mg/l

Parameter : LL50 (HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2)

Species : Acute (short-term) fish toxicity
Effective dose : > 100 mg/l

Acute (short-term) algae toxicity

Parameter : EL0 (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)

Species : Pseudokirchneriella subcapitata
Evaluation parameter : Acute (short-term) algae toxicity

Effective dose : 1000 mg/l
Exposure time : 72 h

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12.2 Persistence and degradability

Biodegradable.

Abiotic degradation

Abiotic degradation in Air

Expected to degrade rapidly in air.

Biodegradation

Parameter : Biodegradation (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)
Inoculum : Biodegradation
Effective dose : 69 %
Exposure time : 28 day
Evaluation : Biodegradable.
Parameter : Biodegradation (HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2)
Evaluation : Biodegradable.

12.3 Bioaccumulative potential

Parameter : Partition coefficient n-octanol /water (log P O/W) (HYDROCARBONS, C11-C16, N-ALKANES, ISOALKANES, < 2 % AROMATICS ; CAS No. : 1809170-78-2)
Concentration : 4,5 - 7
Parameter : Partition coefficient n-octanol /water (log P O/W) (HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, < 2 % AROMATICS)
Concentration : > 4
No information available.

12.4 Mobility in soil

No information available.

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

None

12.7 Additional ecotoxicological information

None

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.

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

No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

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14.4 Packing group

No dangerous good in sense of these transport regulations.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

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

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no. : 3

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 mixture is a VOC according to 2010/75/EC.

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

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

15.2 Chemical safety assessment

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

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Hydrocarbons, C11-C16, n-alkanes, iso-alkanes, < 2% aromatics

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

AFHF = 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

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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
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

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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)

H304 May be fatal if swallowed and enters airways.

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.
