

SAFETY

(REACH regulation (E

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE

1.1. Product identifier

Product name : BRAKE CLEAN

Product code : 20560

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

Brake cleaner

1.3. Details of the supplier of the safety data sheet

Registered company name : MOTUL

Address : 119, Boulevard Felix Faure. 93300 AUBERVILLIERS C

Telephone : 33.1.48.11.70.00. Fax: 33.1.48.33.28.79. Telex: .

Email : motul_hse@motul.fr

1.4. Emergency telephone number : +44 (0) 1235 239 670.

Association/Organisation : ORFILA.

Other emergency numbers

UNITED STATES: 001 866 928 0789 / CANADA: 001 800 579 7
239671

BRAZIL : +55 11 3197 5891 / COLOMBIA : +57 601 508 7337 /

Ireland : +353 1 8092566

24 hours a day, 7 days a week

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments

This mixture does not present a physical hazard. Refer to the rec

This mixture does not present a health hazard with the exception

This mixture does not present an environmental hazard. No know

2.2. Label elements

Detergent mixture (see section 15).

Mixture for spray application.

In compliance with EC regulation No. 1272/2008 and its amendments

No labelling requirements for this mixture.

2.3. Other hazards

The mixture does not contain substances classified as 'Substance

CHemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtur

The mixture does not contains substances > = 0.1% with endocrin

Regulation (EU) 2017/2100 of the Commission or Regulation (EU

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008
CAS: 64-17-5	GHS07, GHS02
EC: 200-578-6	Dgr
REACH: 01-2119457610-43	Flam. Liq. 2, H225 Eye Irrit. 2, H319
ETHANOL	
CAS: 111-76-2	GHS07
EC: 203-905-0	Wng
REACH: 01-2119475108-36	Acute Tox. 4, H302 Acute Tox. 4, H311
2-BUTOXYETHANOL	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Acute Tox. 4, H33

Specific concentration limits:

Identification	Specific concentra
CAS: 64-17-5 EC: 200-578-6 REACH: 01-2119457610-43	Eye Irrit. 2: H319
ETHANOL CAS: 111-76-2 EC: 203-905-0 REACH: 01-2119475108-36	
2-BUTOXYETHANOL	

Information on ingredients :

(Full text of H-phrases: see section 16)

[1] Substance for which maximum workplace exposure limits are

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always
NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures**In the event of exposure by inhalation :**

Remove the victim to fresh air. If the symptoms persist, call a phy

In the event of splashes or contact with eyes :

Wash immediately and abundantly with water, including under the

In the event of splashes or contact with skin :

Immediately remove all soiled clothing.

Wash immediately and abundantly with soap and water.

In the event of swallowing :

Seek medical attention, showing the label.

4.2. Most important symptoms and effects, both acute and dela

No data available.

4.3. Indication of any immediate medical attention and special t

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media**Suitable methods of extinction**

Dry agent, foam, carbon dioxide.

Unsuitable methods of extinction

High volume water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decom

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)

- carbon dioxide (CO₂)**5.3. Advice for firefighters**

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergenc**

Consult the safety measures listed under headings 7 and 8.

Spilled product may make surfaces slippery.

For first aid worker

First aid workers will be equipped with suitable personal protective

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent material for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is stored.

7.1. Precautions for safe handling

Always wash hands after handling.

Do not swallow

Do not get in eyes, on skin, or on clothing.

Fire prevention :

Prevent access by unauthorised personnel.

Take precautionary measures against static discharges by bonding and grounding.

No smoking.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Ensure good ventilation at the workplace

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

Do not breathe fumes, vapour, spray.

7.2. Conditions for safe storage, including any incompatibilities

Store between 5°C and 40°C in a dry, well ventilated place.

Only use hydrocarbon-resistant containers, joints and pipes.

Storage

Keep out of reach of children.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2019/1831, 2017/2398, 2017/164, 2009/161, 2004/37) :

CAS	VME-mg/m ³ :	VME-ppm :	VLE-mg/m ³ :
111-76-2	98	20	246

- ACGIH TLV (American Conference of Governmental Industrial Hygienists) :

CAS	TWA :	STEL :	Ceiling :
64-17-5		1000 ppm	
111-76-2	20 ppm		

- Germany - AGW (BAuA - TRGS 900, 08/08/2019) :

CAS	VME :	VME :	Excess :
64-17-5		200 ppm 380 mg/m ³	
111-76-2		10 ppm 49 mg/m ³	

- France (INRS - ED984 / 2020-1546) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-p :
64-17-5	1000	1900	5000
111-76-2	10	49	50

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition) :

**SAFETY DATA SHEET (REGULATION (EC) n° 1907/2006 - REACH)
BRAKE CLEAN - 20560**

CAS	TWA :	STEL :	Ceiling
64-17-5	1000 ppm 1920 mg/m ³		
111-76-2	25 ppm 123 mg/m ³	50 ppm 246 mg/m ³	

Derived no effect level (DNEL) or derived minimum effect level

ETHANOL (CAS: 64-17-5)

Final use:

Exposure method: Dermal
Potential health effects: Long term effects
DNEL : 343 mg/kg bw/a

Exposure method: Inhalation
Potential health effects: Short term effects
DNEL : 1900 mg/m³

Exposure method: Inhalation
Potential health effects: Long term effects
DNEL : 950 mg/m³

Final use:

Exposure method: Ingestion
Potential health effects: Long term effects
DNEL : 87 mg/kg bw/a

Exposure method: Dermal
Potential health effects: Long term effects
DNEL : 206 mg/kg bw/a

Exposure method: Inhalation
Potential health effects: Short term effects
DNEL : 950 mg/m³

Exposure method: Inhalation
Potential health effects: Long term effects
DNEL : 114 mg/m³

Predicted no effect concentration (PNEC):

ETHANOL (CAS: 64-17-5)

Environmental compartment: Soil
PNEC : 0.63 mg/kg soil

Environmental compartment: Fresh water
PNEC : 0.96 mg/l

Environmental compartment: Sea water
PNEC : 0.79 mg/l

Environmental compartment: Interiors
PNEC : 2.75 mg/m³

Environmental compartment: Fresh water
PNEC : 3.6 mg/l

Environmental compartment: Marine
PNEC : 2.9 mg/l

Environmental compartment: Waste
PNEC : 580 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, if possible with extractor fans at work

Personnel shall wear regularly laundered overalls.

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from heat and sunlight.

Never eat, drink or smoke during use. Remove and wash contaminated clothing immediately, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes.

Before handling, wear safety goggles in accordance with standards.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated use.

Type of gloves recommended :

Glove thickness:	0.38 mm
Break-through time:	> 480 mn

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been in contact shall be washed.

- Respiratory protection

Breathing apparatus only when aerosol or spray are formed.

Odour

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state :

Colour

Unspecified

Odour threshold :

Freezing point

Freezing point / Freezing range :

Boiling point or initial boiling point and boiling range

Boiling point/boiling range :

Flammability

Flammability (solid, gas) :

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) :

Explosive properties, upper explosivity limit (%) :

Flash point

Flash Point :

Auto-ignition temperature

Self-ignition temperature :

Decomposition temperature

Decomposition point/decomposition range :

pH

pH (aqueous solution) :

pH :

Kinematic viscosity

Viscosity :

Solubility

Water solubility :

Fat solubility :

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water :

Vapour pressure

Vapour pressure (50°C) :

Density and/or relative density

Density :

Relative vapour density

Vapour density :

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from heat and from sources of ignition
Take precautionary measures against static discharges.

10.5. Incompatible materials

Strong oxidants
Acids

10.6. Hazardous decomposition products

The thermal decomposition may release/form :
- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 609/2003

No data available.

11.1.1. Substances

Acute toxicity :

2-BUTOXYETHANOL (CAS: 111-76-2)

Oral route : LD50 =
Species

ETHANOL (CAS: 64-17-5)

Oral route : LD50 =
Species

Dermal route : 2,000 <
Species

Inhalation route (Vapours) : LC50 >
Species : Rat
OCDE 104

Specific target organ systemic toxicity - repeated exposure :

ETHANOL (CAS: 64-17-5)

Oral route : C > 100
Duration
Species
Duration
OCDE 104

jours)

11.1.2. Mixture

Skin corrosion/skin irritation :

Repeated or prolonged contact with the preparation may cause re
absorption through the skin.

Serious damage to eyes/eye irritation :

Mild eye irritation

Aspiration hazard :

"Inhalation of vapours may cause irritation of the respiratory syste
May cause lung damage if swallowed

Monograph(s) from the IARC (International Agency for Research

CAS 111-76-2 : IARC Group 3 : The agent is not classifiable as to

CAS 64-17-5 : IARC Group 1 : The agent is carcinogenic to huma

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

2-BUTOXYETHANOL (CAS: 111-76-2)

Fish toxicity :

LC50 =

Duration

ETHANOL (CAS: 64-17-5)

Fish toxicity :

LC50 =

Species

Duration

Crustacean toxicity :

EC50 >

Species

Duration

Algae toxicity :

ECr50 =

Species

Duration

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

2-BUTOXYETHANOL (CAS: 111-76-2)

Biodegradability :

Rapidly

ETHANOL (CAS: 64-17-5)

Biodegradability :

no degra

degradi

12.3. Bioaccumulative potential

12.3.1. Substances

2-BUTOXYETHANOL (CAS: 111-76-2)

Octanol/water partition coefficient :

log Koe

12.4. Mobility in soil

Water soluble

Mobile in soil

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

Do not dispose of the product in the natural environment, effluent

German regulations concerning the classification of hazards for

WGK 1 : Slightly hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation

Do not contaminate the ground or water with waste, do not dispose

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number or ID number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation s

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2

- Container information:

No data available.

- Particular provisions :

No data available.

- Labelling for detergents (EC Regulation No. 648/2004,907/200

- less than 5 % : nonionic surfactants

- German regulations concerning the classification of hazards s

WGK 1 : Slightly hazardous for water.

15.2. Chemical safety assessment

Product is not classified health and environmental hazard. Expos

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the info
knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified

It is at all times the responsibility of the user to take all necessary

The information in this safety data sheet must be regarded as a d

guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a

LC50 : The concentration of a test substance resulting in 50% lethality

EC50 : The effective concentration of substance that causes 50% effect

ECr50 : The effective concentration of substance that causes 50% effect

REACH : Registration, Evaluation, Authorization and Restriction of Chemicals

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous Goods

WGK : Wassergefährdungsklasse (Water Hazard Class).

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.