



## SAFETY DATA SHEET

### SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name : RBF 600 FL  
Product code : 48100northamerica

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

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

Registered company name : MOTUL.  
Address : 119 BOULEVARD FELIX FAURE.93300.AUBERVILLIERS CEDEX.FRANCE.  
Telephone : +33 (0)1.48.11.70.00. Fax : +33 (0)1.48.33.28.79.  
Email: motul\_hse@motul.fr

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

Association/Organisation : .

#### Other emergency numbers

UNITED STATES AND CANADA : 001 866 928 0789  
BRAZIL : +55 11 3197 5891

MEXICO : +52 55 5004 8763  
CHILE : +562 2582 9336

### SECTION 2 : HAZARDS IDENTIFICATION

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

##### HCS compliant.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

#### 2.2. Label elements

##### HCS compliant.

Precautionary statements - General :

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.

Precautionary statements - Response :

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

#### 2.3. Other hazards

No data available.

### SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

##### Composition :

Identification	HCS	Nota	%
CAS: 143-22-6 EC: 205-592-6 REACH: 01-2119531322-53 2-(2-(2-BUTOXYETHOXY)ETHOXY)ETHANOL	GHS05 Dgr Eye Dam. 1, H318		2.5 <= x % < 10
CAS: 112-34-5 EC: 203-961-6 REACH: 01-2119475104-44 2-(2-BUTOXYETHOXY)ETHANOL	GHS07 Wng Eye Irrit. 2, H319	[1]	2.5 <= x % < 10

CAS: 111-46-6 EC: 203-872-2 REACH: 01-2119457857-21 2,2'-OXYDIETHANOL	GHS07, GHS08 Wng Acute Tox. 4, H302 STOT RE 2, H373	[1]	0 <= x % < 1
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**Information on ingredients :**

[1] Substance for which maximum workplace exposure limits are available.

## SECTION 4 : FIRST AID MEASURES

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

### 4.1. Description of first aid measures

**In the event of swallowing :**

Seek medical attention, showing the label.

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

No data available.

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

No data available.

## SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

### 5.1. Extinguishing media

### 5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

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

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

No data available.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

Consult the safety measures listed under headings 7 and 8.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

### 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums 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 handled.

### 7.1. Precautions for safe handling

Always wash hands after handling.

**Fire prevention :**

Prevent access by unauthorised personnel.

**Recommended equipment and procedures :**

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

**Prohibited equipment and procedures :**

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

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

No data available.

### 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 (2017/164/UE, 2009/161/UE, 2006/15/CE, 2000/39/CE, 98/24/CE)

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
112-34-5	67.5	10	101.2	15	-

- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

CAS	VME :	VME :	Excess	Notes
112-34-5		10 ppm 67 mg/m3		1,5 (I)
111-46-6		10 ppm 44 mg/m3		4(II)

- France (INRS - ED984 :2012) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
112-34-5	10	67.5	15	101.2	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
111-46-6	23 ppm 101 mg/m3				

#### Derived no effect level (DNEL) or derived minimum effect level (DMEL):

2,2'-OXYDIETHANOL (CAS: 111-46-6)

#### Final use:

Exposure method:  
Potential health effects:  
DNEL :

#### Workers.

Dermal contact.  
Long term systemic effects.  
106 mg/kg de poids corporel/jour

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
60 mg de substance/m3

#### Final use:

Exposure method:  
Potential health effects:  
DNEL :

#### Consumers.

Dermal contact.  
Long term systemic effects.  
53 mg/kg de poids corporel/jour

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
12 mg de substance/m3

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

#### Final use:

Exposure method:  
Potential health effects:  
DNEL :

#### Workers.

Dermal contact.  
Long term systemic effects.  
20 mg/kg de poids corporel/jour

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term systemic effects.  
101.2 mg de substance/m3

Exposure method:  
Potential health effects:

Inhalation.  
Long term systemic effects.

DNEL : 67 mg de substance/m3

Exposure method: Inhalation.  
Potential health effects: Short term local effects.  
DNEL : 50.6 mg de substance/m3

**Final use:** **Consumers.**  
Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 1.25 mg/kg de poids corporel/jour

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 10 mg/kg de poids corporel/jour

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 34 mg de substance/m3

2-(2-(2-BUTOXYETHOXY)ETHOXY)ETHANOL (CAS: 143-22-6)

**Final use:** **Workers.**  
Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 50 mg/kg de poids corporel/jour

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 195 mg de substance/m3

**Final use:** **Consumers.**  
Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 2.5 mg/kg de poids corporel/jour

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 25 mg/kg de poids corporel/jour

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 117 mg de substance/m3

**Predicted no effect concentration (PNEC):**

2,2'-OXYDIETHANOL (CAS: 111-46-6)

Environmental compartment: Soil.  
PNEC : 1.53 mg/kg

Environmental compartment: Fresh water.  
PNEC : 10 mg/l

Environmental compartment: Sea water.  
PNEC : 1 mg/l

Environmental compartment: Intermittent waste water.  
PNEC : 10 mg/l

Environmental compartment: Fresh water sediment.  
PNEC : 20.9 mg/kg

Environmental compartment: Waste water treatment plant.  
PNEC : 199.5 mg/l

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Environmental compartment: PNEC :	Soil. 0.4 mg/kg
Environmental compartment: PNEC :	Fresh water. 1.0 mg/l
Environmental compartment: PNEC :	Sea water. 0.1 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 3.9 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 4.0 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.4 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 200 mg/l
Environmental compartment: PNEC :	Salt water predators (oral). 56 mg/kg
2-(2-(2-BUTOXYETHOXY)ETHOXY)ETHANOL (CAS: 143-22-6)	
Environmental compartment: PNEC :	Soil. 0.45 mg/kg
Environmental compartment: PNEC :	Fresh water. 1.5 mg/l
Environmental compartment: PNEC :	Sea water. 0.25 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 5.0 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 5.77 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.13 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 200 mg/l
Environmental compartment: PNEC :	Salt water predators (oral). 111 mg/kg

## 8.2. Exposure controls

### 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 the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, 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 standard EN166.

#### - Hand protection

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

#### - Body protection

Work clothing worn by personnel shall be laundered regularly.  
After contact with the product, all parts of the body that have been soiled must be washed.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

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

#### General information :

Physical state :	Fluid liquid.
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#### Important health, safety and environmental information

pH :	Not relevant.
Boiling point/boiling range :	>260°C (500°F)
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).
Density :	> 1
Water solubility :	Soluble.
Viscosity :	5-10 cSt à 20°C

### 9.2. Other information

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 in section 7.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

### 10.5. Incompatible materials

### 10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

No data available.

#### 11.1.1. Substances

##### Specific target organ systemic toxicity - repeated exposure :

2,2'-OXYDIETHANOL (CAS: 111-46-6)

Oral route :

50 < C ≤ 100 mg/kg body weight/day

Duration of exposure : 90 jours

#### 11.1.2. Mixture

No toxicological data available for the mixture.

## SECTION 12 : ECOLOGICAL INFORMATION

The product must not be allowed to run into drains or waterways.

### 12.1. Toxicity

#### 12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

No data available.

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

No data available.

#### 12.6. Other adverse effects

No data available.

### SECTION 13 : DISPOSAL CONSIDERATIONS

The appropriate waste management of the mixture and/or its container must be determined in accordance with local regulations.

#### 13.1. Waste treatment methods

Do not pour into drains or waterways.

#### Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

#### 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

-

#### 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 specific for the substance or mixture

The following regulations have been used:

- OSHA Hazard Communication Standard 29 CFR 1910.1200

#### - Container information:

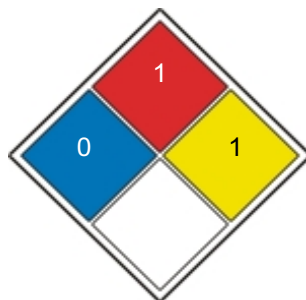
No data available.

#### - Particular provisions :

No data available.

#### - Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=0 Inflammability=1 Instability/Reactivity=1 Specific Risk=none



#### - Clean Water Act : Toxic Pollutants (CWA 307A)

Unlisted.

- **Clean Water Act : Hazardous Substances (CWA 311)**  
Unlisted.
  - **Clean Water Act : Hazardous Substances (CWA 304b)**  
Unlisted.
  - **Clean Water Act : Priority Pollutants (CWA Priority)**  
Unlisted.
  - **Clean Air Act : Hazardous Air Pollutants (CAA 112(b) HAP (188))**  
Unlisted.
  - **Clean Air Act : Organic Hazardous Air Pollutants National Emission Standards (CAA 112(b) HON (387))**

CAS	Name
112-34-5	2-(2-BUTOXYETHOXY)ETHANOL
  - **Clean Air Act : Protection of Stratospheric Ozone (CAA 602)**  
Unlisted.
  - **SARA 110**  
Unlisted.
  - **SARA 302/304**  
Unlisted.
  - **SARA 313**  
Unlisted.
  - **California proposition 65 : Chemicals known to the state to cause cancer or reproductive toxicity**  
Unlisted.
  - **Massachusetts : Right to Know**  
Unlisted.
  - **New Jersey : Right to Know**  
Unlisted.
  - **Pennsylvania : Hazardous Substance**  
Unlisted.
  - **Rhode Island : Hazardous substance list**  
Unlisted.
  - **TSCA (Toxic Substances Control Act) - USA**  
All components are listed or exempted.
- 15.2. Chemical safety assessment**  
No data available.

## SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

### Wording of the phrases mentioned in section 3 :

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure .

### Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

HCS : Hazard Communication standard (OSHA).