SAFETY DATA SHEET In accordance with Regulation (EC) No. 1907/2006 as amended by Regulation (EU) 2020/878	**SDS N°006** (Available on www.rofafrance.com)
Reference Fuel Smoke Point - SM-MIX **Certified Reference Materials (CRM)**	SDS Revision : 01 – Revision date : 27/03/2026 *Replace version dated :* 03/02/2026

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. **Product identification :** Commercial name : Reference Fuel Smoke Point - SM-MIX (SM-Mix 1 to SM-Mix 7) / Description: Mixture of toluene and 2,2,4-trimethylpentane (isooctane) for smoke point test according to ASTM D1322 / Sector of use: SU3 - Industrial and laboratory uses. UFI = H800-R0X0-600H-4KJG

Designation	mm	% Toluene (V/V)	% 2,2,4-Trimethylpentane (V/V)
SM-Mix 1	14,7	40	60
SM-Mix 2	20,2	25	75
SM-Mix 3	22,7	20	80
SM-Mix 4	25,8	15	85
SM-Mix 5	30,2	10	90
SM-Mix 6	35,4	5	95
SM-Mix 7	42,8	0	100

1.2. Relevant identified uses of the substance or mixture : Laboratory use/ Professional use only
and uses not recommended: None known

1.3. Contact details of the safety data sheet provider:

ROFA France
7 Zone Artisanale Béton Ouest
25160 Oye-et-Pallet - France
Phone number : +33 3 81 69 75 47
Email : contact@rofafrance.com

1.4. Emergency phone number

ORFILA / 01.45.42.59.59
Carechem 24 International.
For English-speaking countries +44(0)1235239670
Europe (in local languages) +33149000049
Africa and the Middle East +44(0)1235239671
China 861051003039

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture : REGULATION (CE) N° 1272/2008
Classification: Flammable liquids, Category 2 (H225) / Aspiration toxicity, Category 1 (H304) / Skin irritation, Category 2 (H315) / Specific target organ toxicity (single exposure), Category 3 (H336) / Acute and chronic aquatic toxicity (H400, H410, H412) according to the proportion of toluene and isooctane.

2.2 Label elements: Labeled according to: REGULATION (EC) NO. 1272/2008 CE-N.289-220-8

Hazard pictograms



SGH02 SGH08 SGH09 SGH07

Hazard statements
• H225: Highly flammable liquid and vapour. • H304: May be fatal if swallowed and enters airways. • H315 : Causes skin irritation. • H336: May cause drowsiness or dizziness. • H400/H410/H412: Very toxic/harmful to aquatic life with long lasting effects (depending on composition).

2.3 Other hazards : This mixture/product does not contain any substances considered to meet the PBT and/or vPvB classification criteria. This product does not contain any substances considered to be endocrine disruptors according to the criteria set out in Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

3. COMPOSITION/COMPONENT INFORMATION

3.1 Substances : Not applicable. This product is a blend.
3.2 Mixtures:
Chemical nature: Kerosene (petroleum), hydrodesulfurized. A complex combination of hydrocarbons obtained from a petroleum feedstock by treatment with hydrogen to convert organic sulphur into hydrogen sulphide, which is then removed. It consists of hydrocarbons whose carbon numbers are predominantly between C9 and C16 and whose boiling point is between about 150 and 290 °C.

Hazardous components

Name of chemicals	N° CE	Reach record number	N° CAS	Weight %	GHS classification
Toluene	203-625-9	01-2119471310-51	108-88-3	0 à 40	Flam. Liq. 2 (H225), Asp. Tox. 1 (H304), Skin Irrit. 2 (H315), STOT SE 3 (H336), Aquatic Chronic 3 (H412).
2,2,4-Trimethylpentane	208-759-1	01-2119457965-22	540-84-1	60 à 100	Flam. Liq. 2 (H225), Asp. Tox. 1 (H304), Skin Irrit. 2 (H315), STOT SE 3 (H336), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410).

4. FIRST AID AND MEASURES

4.1 Description of first aid
4.1.1 General advice: In the event of an accident: Contact a doctor or emergency services - carry the label or this safety data sheet. Consult a doctor if you are unsure about the condition of the injured person or if symptoms persist. Never give water or any other drink to an unconscious person.
4.1.2 Inhalation: This risk exists only if the product is sprayed or heated to high temperatures. Transport the person out of the contaminated area, keep them warm and allow them to rest. In case of suspected inhalation of H2S (hydrogen sulfide), rescue workers must wear a breathing apparatus. Consult a doctor for possible treatment.
4.1.3 Respiratory tract irritation; narcosis.
4.1.4 Ingestion: Consult a doctor. Do not give anything to drink. Do not induce vomiting to avoid the risk of aspiration into the respiratory tract. Leave the person at rest. Nausea, vomiting, abdominal pain. Transport the victim to the hospital immediately.
4.1.5 Skin contact: Remove all soiled or stained clothing immediately. Wash immediately with plenty of soap and water.
4.1.6 Skin: Irritation
4.1.7 Eye contact: Wash immediately with plenty of water, keeping the eyelids open for at least 15 minutes and consult a specialist. Burning sensation and temporary redness.
4.1.8 Aspiration: If it is suspected that the product has entered the lungs (for example, in case of vomiting), take the person to hospital for immediate treatment.
4.2 Main symptoms and effects, acute and delayed
Contact with eyes: may cause slight irritation.
Skin contact: May cause skin irritation and/or dermatitis.
Inhalation: Inhalation of fumes can cause headaches, nausea, vomiting and impaired consciousness. May irritate airways.
Ingestion: Ingestion can cause gastrointestinal upset, nausea, vomiting and diarrhoea. May cause central nervous system depression. In case of accidental ingestion, the product may enter the lungs due to its low viscosity and cause the rapid development of very serious lung lesions (medical consultation within 48 hours).
4.3 Indication of possible immediate medical care and special treatment needed, if needed
Note to doctors : Treat according to symptoms. Bring this safety data sheet or label for this product.

ROFA France – 7 Zone Artisanale Béton Ouest - F 25160 Oye et Pallet
Tél. ++ 33 3 81 69 75 47
contact@rofafrance.com – www.rofafrance.com

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media : foam, CO2, powder, optionally sprayed water (preferably water containing a wetting agent).
- not recommended: Continuous water jets are prohibited as they could promote the spread of flames. The simultaneous use of foam and water on the same surface should be avoided, as water destroys the foam. Specific methods of fire fighting: Cooling tanks and surfaces exposed to the fire by an abundant jet of water. Isolate the source of the combustible product; allow to burn under supervision or use appropriate fire extinguishers, as appropriate.
5.2 Specific hazards : Incomplete combustion and thermolysis produce gases of variable toxicity, such as CO, CO2, various hydrocarbons, aldehydes and soot. These can be very dangerous if inhaled. Special precautions must be taken to avoid any risk of explosion. When the temperature is close to the flash point, the vapour pressure is so high that it can create an explosive atmosphere above the stored product.
5.3 Protective measures for fire-fighters : In case of large or confined spaces, or poorly ventilated, wear complete fire-resistant protective clothing and a self-contained breathing apparatus (SCBA) with full face mask operating in positive pressure mode. Cool tanks and surfaces exposed to fire by abundant water spray. Prevent fire-fighting runoff from entering sewers and waterways. In case of suspected inhalation of H2S (hydrogen sulfide), rescue workers must wear a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures : No flames, no sparks, eliminate all sources of ignition, do not smoke, take special precautions to avoid static electric charges, avoid contact with hot surfaces.
For untrained personnel: do not intervene without appropriate protective equipment, gloves and safety goggles. Avoid contact with skin and eyes.
For emergency responders: do not attempt to act without proper protective equipment, respiratory apparatus. Evacuate personnel.
6.2 Environmental precautions : prevent entry into sewers and public waters. Warn the authorities if liquid enters water systems or public waters.
6.3 Methods and material for containment and cleaning up : In the event of a spill, the soil can become slippery. Sweep or vacuum the product. Dispose of the contaminated product at an authorized site. Notify authorities if product enters sewer or public water.
6.4 Reference to other sections : See section 13 "Disposal Considerations" for waste handling. See section 8 "Exposure controls/personal protection" for protective measures.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling :
Tips for safe handling: Work under a fume hood. Do not inhale the substance/mixture. Avoid the production of vapours/aerosols.
Fire and explosion protection tips: Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against electrostatic discharge.
Hygiene measures: Change contaminated clothing immediately. Apply preventive skin protection. Wash hands and face after handling the substance. For precautions, see section 2.2.
7.2 Storage conditions, including incompatibilities :
Storage conditions: Keep the container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Storage class: Storage class (TRGS 510): 3: Flammable liquids
7.3 Specific End-Use(s) : This product should only be used for the applications listed in section 1.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Chemical name	VME (France)	VLE (France)
Toluene 108-88-3	20 ppm (76,8 mg/m³)	100 ppm (384 mg/m³)
2,2,4-Trimethylpentane 540-84-1	300 ppm (1420 mg/m³)	No danger identified

8.2 Exposure control : Use this product in a well-ventilated atmosphere and with explosion-proof equipment. When working in confined spaces (tanks, containers, etc.), ensure that there is a clean air supply for breathing and wear the recommended equipment.

ROFA France – 7 Zone Artisanale Béton Ouest - F 25160 Oye et Pallet
Tél. ++ 33 3 81 69 75 47
contact@rofafrance.com – www.rofafrance.com

8.2.1 Occupational exposure limit: The protection of people and the environment against undesirable exposures must be ensured by strict control of the substance, using technical means and control technologies that reduce emissions and subsequent exposure to prevent the release of vapours into the air, entry into aquatic and soil environments, and potential human exposure. Areas for handling or storage of the substance shall be equipped with impermeable floors and retention basins for accidental leakage. A general and local ventilation as well as an effective suction are essential.
8.2.2 Engineering exposure controls: Ensure adequate ventilation. Apply technical measures to comply with occupational exposure limits. When working in confined spaces, ensure there is sufficient air to breathe and carry recommended equipment. Do not enter the tanks until you have checked the oxygen level.
8.2.3 Respiratory protection: If there is a risk of exposure exceeding the average exposure value, an appropriate breathing apparatus must be worn by everyone.
8.2.4 Hand protection: Aromatic hydrocarbon resistant gloves. In case of spills or limited contact: Recommended material: Nitrile > 0.3 mm / > 60 minutes (EN 374-3). - In case of prolonged or repeated contact: Recommended materials: Polymer fluorine and PVA > 480 minutes (EN 374-3), material thicknesses for gloves; Nitrile 0.5 mm / > 480 minutes (EN 374-3). For more details on the choice of the appropriate glove, please contact the manufacturers of protective gloves.

Eye protection / Skin and body protection / Respiratory protection



8.2.5 Occupational hygiene practices: Avoid contact with skin. If skin contact occurs, immediately wash affected area thoroughly with soap and water. In case of eye contact, wash immediately with plenty of water, keeping the eyelids open for at least 15 minutes and consult a specialist.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a. Appearance: Liquid at 20°C
b. Color: Colorless.
c. Smell: Characteristic (aromatic/petroleum)
d. Specific density/gravity: 690–870 kg/m3 at a temperature of 15°C
e. Flash point: Between -12°C and +4°C
f. Vapour pressure: 29 to 51 mbar at a temperature of 20°C
g. Solubility: - in water, practically immiscible Insoluble / in organic solvents, Soluble in many common solvents.
h. Viscosity: ~ 8.5 mm2/s at a temperature of -20°C

9.2 Other information: No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity: Flammable liquid and vapours.
10.2 Chemical stability: The product is stable at normal storage, handling and use temperatures.
10.3 Possibility of hazardous reactions: None known.
10.4 Conditions to be avoided: Heat, sparks, ignition points, flames, static electricity.
10.5 Incompatible substances: Strong oxidizing agents. Strong acids and bases, halogens.
10.6 Hazardous decomposition products: None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

11.1 Information on the hazard classes defined in Regulation (EC) No 1272/2008 :
Acute toxicity / Local effect: Inhalation, remarks. Inhaled fumes or aerosols can irritate the respiratory tract and mucous membranes. At high concentrations, inhaled fumes have a narcotic effect on the central nervous system, resulting in mild headaches, dizziness, drowsiness or severe fainting. In this case, first aid is needed quickly.
Contact with the skin, comments: Irritating.
Eye contact, comments: Not classified as irritating but may cause burning sensation and temporary redness.
Sensitization: Not classified as allergen.
11.2 Information on other hazards :
Exposure may occur by inhalation, accidental ingestion or penetration of individual components through the skin.

ROFA France – 7 Zone Artisanale Béton Ouest - F 25160 Oye et Pallet
Tél. ++ 33 3 81 69 75 47
contact@rofafrance.com – www.rofafrance.com

Symptoms and effects (acute, delayed and chronic after short- or long-term exposure). Depending on the exposure dose, the substance may cause headaches, sore throats, coughs, difficulty breathing, chest tightness, central nervous system disorders, nausea, drowsiness and dizziness. These disorders can manifest as abdominal cramps, spontaneous vomiting or diarrhea. Direct contact with eyes or skin may cause temporary irritation manifested by redness or swelling of the affected area, or by watery eyes, eye redness and swelling. Prolonged exposure to the substance can degrease the skin and cause cracks. The substance may cause or promote the development of cancers. Handling the hot (heated) product can cause burns, which are usually manifested by redness and skin irritation or, in more severe cases, blisters.
Interactive impacts: No interaction occurs if the product is used appropriately.
Endocrine disrupting properties: Contains no known substances containing endocrine disruptors affecting human health.

12. ECOLOGICAL INFORMATION

12.1 Toxicity : Very toxic to aquatic organisms, causing long-term adverse effects.
12.2 Persistence and Degradability : Low biodegradability for toluene.
12.3 Bio accumulative potential : Low for both components.
12.4 Mobility in soil : The substance is a UVCB. Standard tests for this point are not appropriate.
12.5 PBT and vPvB assessment results : It is not possible to compare this UVCB hydrocarbon-type substance with the criteria of Annex XIII to Directive (EC) No. 1907/2006 REACH as a whole. Therefore, the evaluation of the individual components concluded that the product does not meet the criteria for persistence, bioaccumulation and toxicity, nor the criteria for high persistence and bioaccumulation in Annex XIII to (EC) No. 1907/2006 REACH. Therefore the product is not identified as PBT (P = persistent, B = bioaccumulative, T = toxic) or vPvB (vP = very persistent, vB = very bioaccumulative).
12.6 Endocrine disrupting properties : This product contains no known or suspected endocrine disruptors.
12.7 Other adverse effects : This product contains substances that are toxic to the environment. May have adverse effects on aquatic organisms. This product contains substances that may cause long-term adverse effects on the aquatic environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal: The recommended method is recycling or incineration in an approved installation.
Disposal of contaminated packaging: Empty packaging may contain flammable or explosive vapours. Hand over to an authorised waste contractor.

14. INFORMATIONS SUR LES TRANSPORTS

<table>
<tr><th></th><th>14.1 UN / ID</th><th>14.2 UN proper shipping name</th><th>14.3 Hazard Class(es)</th><th>14.4 Packaging group</th><th>14.5 Environmental hazards</th><th>Other information</th></tr>
<tr><td>ADR</td><td rowspan="3">UN1262</td><td rowspan="3">OCTANES</td><td rowspan="3">Transport hazard class: 3
Label: 3
Classification code: F1
</td><td rowspan="3">II</td><td rowspan="3">Yes</td><td rowspan="2">Limited quantities: 1 L</td></tr>
<tr><td>IMDG</td></tr>
<tr><td>IATA</td><td>/</td></tr>
</table>

14.6. Special precautions for user : Not applicable
14.7 Maritime transport in bulk according to IMO instruments : No data available.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Restrictions for application :
National legislation : ICPE #4734 - Order of 1 July 2004 establishing the technical and safety rules applicable to the storage of petroleum products in places not covered by the legislation on classified installations or the regulations on establishments open

ROFA France – 7 Zone Artisanale Béton Ouest - F 25160 Oye et Pallet
Tél. ++ 33 3 81 69 75 47
contact@rofafrance.com – www.rofafrance.com

to the public - Tables of occupational diseases / General scheme table 84 / Tables of occupational diseases_General scheme table 84_Illnesses caused by liquid organic solvents for professional use.
European Union: This substance has been registered according to Regulation (EC) N° 1907/2006 (REACH)
International Inventories: EINECS/ELINCS – Complies / TSCA - Complies / DSL Complies / ENCS - complies / IECSC - complies / KECL Complies / PICCS complies / AICS complies / NZiOC Complies.
15.2. Chemical safety assessment : No

16. OTHER INFORMATION

Sources of information : MSDS of constituent substances.

Safety datasheet changes
This datasheet has been changed since last version.
Thanks to contact ROFA France by using this mail contact@rofafrance.com if you want to be informed of the changes.

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2016 as amended by Regulation (EU) 2020/878

End of the safety data sheet

ROFA France – 7 Zone Artisanale Béton Ouest - F 25160 Oye et Pallet
Tél. ++ 33 3 81 69 75 47
contact@rofafrance.com – www.rofafrance.com