

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 28.11.2013

Revision: 28.11.2013

1 Identification of the substance/mixture and of the company/undertaking• **Product details:**• **Trade name:**F-45• **Manufacturer/Supplier:**

Imbach Chemie AG
 Pilatusstrasse 31
 CH-5630 Muri
 Tel +41 (0)56 664 06 16
 Fax +41 (0)56 664 06 17
 E-Mail: info@imbachchemie.ch

• **Emergency information:**

Swiss Toxicological Information Centre
 CH-8032 ZÜRICH
 Tel.: +41 (0) 44 251 51 51
 National emergency call: 145

2 Hazards identification• **Classification of the substance or mixture**• **Classification according to Regulation (EC) No 1272/2008**

GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

• **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R40-65: Limited evidence of a carcinogenic effect. Harmful: may cause lung damage if swallowed.



Xi; Irritant

R38: Irritating to skin.



F; Highly flammable

R11: Highly flammable.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

(Contd. on page 2)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 28.11.2013

Revision: 28.11.2013

Trade name: F-45

(Contd. of page 1)

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Has a narcotizing effect.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

- **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

- **Signal word** Danger

- **Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H351 Suspected of causing cancer.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. -
 No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/
 equipment.

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

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all
 contaminated clothing. Rinse skin with water/shower.

P405 Store locked up.

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

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

- **Code letter and hazard designation of product:**



Xn Harmful
 F Highly flammable
 N Dangerous for the environment

- **Hazard-determining components of labelling:**

methylene chloride

Naphtha (petroleum), hydrotreated light

- **Risk phrases:**

11 Highly flammable.

38 Irritating to skin.

40 Limited evidence of a carcinogenic effect.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

3 Keep in a cool place.

9 Keep container in a well-ventilated place.

(Contd. on page 3)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 28.11.2013

Revision: 28.11.2013

Trade name:F-45

(Contd. of page 2)

- 16 Keep away from sources of ignition - No smoking.
 23 Do not breathe fumes/aerosol.
 25 Avoid contact with eyes.
 33 Take precautionary measures against static discharges.
 36/37 Wear suitable protective clothing and gloves.
 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
 57 Use appropriate container to avoid environmental contamination.
 60 This material and its container must be disposed of as hazardous waste.

3 Composition/information on ingredients• **Chemical characterization**• **Description:**

Mixture of the substances listed below with nonhazardous additions.

• **Dangerous components:**

CAS: 75-09-2	methylene chloride	50-100%
EINECS: 200-838-9	Xn R40 Carc. Cat. 3 GHS08 Carc. 2, H351	
CAS: 64742-49-0	Naphtha (petroleum), hydrotreated light	25-50%
EINECS: 265-151-9	Xn R65; Xi R38; F R11; N R51/53 R67 GHS02 Flam. Liq. 2, H225; GHS08 Asp. Tox. 1, H304; GHS09 Aquatic Chronic 2, H411; GHS07 Skin Irrit. 2, H315; STOT SE 3, H336	

• **Additional information**

For the wording of the listed risk phrases refer to section 16.

4 First aid measures• **General information**

Immediately remove any clothing soiled by the product.

• **After inhalation**

Supply fresh air or oxygen; call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

• **After skin contact**

Immediately wash with water and soap and rinse thoroughly.

• **After eye contact** Rinse opened eye for 15 minutes under running water.• **After swallowing**

Do not induce vomiting; call for medical help immediately.

• **Information for doctor**

Repeated exposure may cause skin dryness or skin disease (dermatitis).

• **The following symptoms may occur:**

Headache
 Dizziness
 Drowsiness
 CNS disorders

5 Firefighting measures• **Suitable extinguishing agents**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.CO₂, sand, extinguishing powder. Do not use water.• **For safety reasons unsuitable extinguishing agents**

Water.

(Contd. on page 4)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 28.11.2013

Revision: 28.11.2013

Trade name:F-45

(Contd. of page 3)

Water with full jet.

- **Special hazards caused by the material, its products of combustion or resulting gases:**

Phosgene gas
 Hydrogen chloride (HCl)

- **Protective equipment:**

Wear self-contained respiratory protective device.
 Wear fully protective suit.

6 Accidental release measures

- **Person-related safety precautions:**



Wear protective equipment. Keep unprotected persons away.

- **Measures for environmental protection:**

Prevent seepage into sewage system, workpits and cellars.
 Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- **Measures for cleaning/collecting:**

Absorb liquid components with liquid-binding material.
 Dispose contaminated material as waste according to item 13.
 Ensure adequate ventilation.
 Do not flush with water or aqueous cleansing agents.

7 Handling and storage

- **Handling**

- **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.

- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

- **Information about storage in one common storage facility:**

Store away from oxidising agents.

- **Further information about storage conditions:**

Keep receptacle tightly sealed.
 Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:**

No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

75-09-2 methylene chloride

WEL Short-term value: 1060 mg/m³, 300 ppm

Long-term value: 350 mg/m³, 100 ppm

Sk

- **Additional information:**

The lists that were valid during the creation were used as basis.

- **Personal protective equipment**

- **General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

(Contd. on page 5)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 28.11.2013

Revision: 28.11.2013

Trade name:F-45

(Contd. of page 4)

Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

• **Breathing equipment:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• **Protection of hands:**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• **As protection from splashes gloves made of the following materials are suitable:**

Fluoro carbon rubber - FKM gloves (0.4 mm).

Glove(tree-ply) - PE/EVAL/PE

(PE=Polyethylene, EVAL=Ethylene-vinyl-alcohol-copolymer).

• **Not suitable are gloves made of the following materials:**

Textile gloves

Natural rubber/Natural latex gloves.

Polychloroprene - CR gloves.

Nitrile rubber/Nitrile latex - NBR gloves.

Butyl rubber - Butyl gloves.

Polyvinyl chloride - PVC gloves.

• **Eye protection:** Tightly sealed goggles.

• **Body protection:** Solvent resistant protective clothing

9 Physical and chemical properties

• **General Information**

• **Appearance:**

Form: fluid

Colour: clear

colourless

• **Odour:**

characteristic

• **Change in condition**

Melting point/Melting range: undetermined

Boiling point/Boiling range: 39°C

• **Flash point:**

-25°C

• **Ignition temperature:**

250°C

• **Self igniting:**

Product is not self-igniting.

• **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

(Contd. on page 6)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 28.11.2013

Revision: 28.11.2013

Trade name:F-45

(Contd. of page 5)

- **Explosion limits:**
 - Lower:** 1.0 Vol %
 - Upper:** 22.0 Vol %
- **Vapour pressure at 20°C:** 190 hPa
- **Density at 20°C:** 1.01118 g/cm³
- **Solubility in / Miscibility with Water:** not miscible or hardly miscible
- **pH-value:** not applicable

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
Heat, flames and sparks.
No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions** Reacts with alkaline metals.
- **Dangerous products of decomposition:**
Hydrogen chloride (HCl)
Phosgen
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Acute toxicity:**
 - **LD/LC50 values that are relevant for classification:**
-
- 75-09-2 methylene chloride**
- | | | |
|------------|---------|------------------|
| Oral | LD50 | 1600 mg/kg (rat) |
| | LDLo | 357 mg/kg (man) |
| Inhalative | LC50/6h | 52 mg/l (mouse) |
| | | 56 mg/l (rat) |
- 64742-49-0 Naphtha (petroleum), hydrotreated light**
- | | | |
|--------|------|--------------------|
| Oral | LD50 | > 2000 mg/kg (rat) |
| Dermal | LD50 | > 2000 mg/kg (rat) |
- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** No irritant effect.
 - **Sensitization:** No sensitising effects known.
 - **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information

- **Ecotoxicological effects:**
 - **Acquatic toxicity:**
-
- 75-09-2 methylene chloride**
- | | |
|----------|--------------------------------------|
| EC0/16h | 500 mg/l (Pseudomonas putida) |
| EC50/48h | 1682 mg/l (Daphnia magna) |
| IC50/96h | 660 mg/l (Selenastrum capricornutum) |
| LC50/96h | 220 mg/l (bluegill sunfish) |
| | 310 mg/l (Pimephales promelas) |
- 64742-49-0 Naphtha (petroleum), hydrotreated light**
- | | |
|------|---------------------|
| EC50 | 10 mg/l (Bacteriae) |
| IC50 | < 100 mg/l (algae) |
| LC50 | < 10 mg/l (fish) |
- **Remark:** Toxic to fish.

(Contd. on page 7)

Safety Data Sheet
according to 1907/2006/EC, Article 31

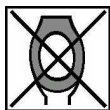
Printing date 28.11.2013

Revision: 28.11.2013

Trade name:F-45

(Contd. of page 6)

- **Additional ecological information:**
- **General notes:**



Water hazard class 2 (German Regulation) (Self-assessment):
 hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

13 Disposal considerations

- **Product:**
- **Recommendation**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**
- **Recommendation:** Disposal according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 336
- **UN-Number:** 1992
- **Packaging group:** II
- **Label** 3+6.1
- **Special marking:** Symbol (fish and tree)
- **Description of goods:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Hexanes, DICHLOROMETHANE)
- **Tunnel restriction code** D/E
- **Maritime transport IMDG:**
- **IMDG Class:** 3
- **UN Number:** 1992
- **Label** 3+6.1
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** Yes
- **Segregation groups** Symbol (fish and tree)
Liquid halogenated hydrocarbons
- **Propper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (Hexanes, DICHLOROMETHANE)
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1992
- **Label** 3+6.1
- **Packaging group:** II
- **Propper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (Hexanes, DICHLOROMETHANE)
- **UN "Model Regulation":**
UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II
- **Environmental hazards:**
Product contains environmentally hazardous substances: Hexanes

(Contd. on page 8)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 28.11.2013

Revision: 28.11.2013

Trade name:F-45

(Contd. of page 7)

15 Regulatory information

- **Chemical safety assessment**
A Chemical Safety Assessment has not been carried out.
- **Technical instructions (air):**
- **Class Share in %**
- | | |
|-----|--------|
| I | 50-100 |
| III | 25-50 |
- **Water pollution class:**
Water pollution class WGK 2 (self classification, Germany): hazardous to water

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
- 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.
- H351 Suspected of causing cancer.
- H411 Toxic to aquatic life with long lasting effects.
- R11 Highly flammable.
- R38 Irritating to skin.
- R40 Limited evidence of a carcinogenic effect.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R67 Vapours may cause drowsiness and dizziness.
- **Department issuing MSDS:** Labor; KK
- **Abbreviations and acronyms:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

GB