

F45

Safety Data Sheet

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

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Version: 1.1

SDS No: 12236-0001

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

1.1. Product identifier

Product form : Mixture

Product name : F45

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Rinse aid

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Imbach Chemie AG

Pilatusstrasse 31

5630 Muri

T +41 56 664 06 16 - F +41 56 664 06 17

info@imbachchemie.ch - www.imbachchemie.ch

1.4. Emergency telephone number

Emergency number : England & Wales: 111, Scotland: 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 2 H225

Skin corrosion/irritation, Category 2 H315

Carcinogenicity, Category 2 H351

Specific target organ toxicity — Single exposure, Category 3, Narcosis H336

Aspiration hazard, Category 1 H304

Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Suspected of causing cancer. May cause drowsiness or dizziness. Causes skin irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02

GHS07

GHS08

GHS09

Signal word (CLP) :

Danger

Hazardous ingredients :

Naphtha (petroleum), hydrotreated light; Dichloromethane

Hazard statements (CLP) :

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.

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Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Extra phrases	: Restricted to professional users.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dichloromethane	(CAS-No.) 75-09-2 (EC-No.) 200-838-9 (REACH-no) 01-2119487001-48	50 - 100	Carc. 2, H351
Naphtha (petroleum), hydrotreated light (Note P)	(CAS-No.) 64742-49-0 (EC-No.) 265-151-9 (EC Index-No.) 649-328-00-1 (REACH-no) 01-2119475515-33	25 - 50	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Note P : The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102)-P260-P262- P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Take off immediately all contaminated clothing. In the event of persistent symptoms receive medical treatment. Take affected person away from danger area.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician. In case of loss of conscience place the victim in the recovery position.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. Treat subsequently with skin cream. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Attention. Beware, danger of aspiration. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation	: High concentration of vapours may induce: headache, dizziness, drowsiness, nausea and vomiting.
Symptoms/effects after skin contact	: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Hydrogen chloride. Carbon oxides (CO, CO₂). Phosgene.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information : Vapours are heavier than air and may spread along floors. The vapour/air mixture is explosive, even in empty, uncleaned receptacles. Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No flames, no sparks. Eliminate all sources of ignition. Evacuate unnecessary personnel. Wear personal protective equipment.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Explosion free apparatus have to be used. Use only outdoors or in a well-ventilated area. Keep container tightly closed. Vapours are heavier than air and may spread along floors. Avoid formation of aerosols.
Hygiene measures : Do not inhale vapour. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Treat subsequently with skin cream. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a dry, cool and well-ventilated place. Pay attention to explosion protection guidelines.
Incompatible products : Oxidizing agent.
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Dichloromethane (75-09-2)	
EU - Occupational Exposure Limits	
Local name	Methylene chloride; Dichloromethane
IOELV TWA (mg/m ³)	353 mg/m ³
IOELV TWA (ppm)	100 ppm
IOELV STEL (mg/m ³)	706 mg/m ³
IOELV STEL (ppm)	200 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
EU - Biological limit values	
Local name	Methylene chloride
European BLV	4 % Parameter: COHb - Medium: Blood 0.3 mg/l Parameter: methylene chloride - Medium: urine 1 mg/l Parameter: methylene chloride - Medium: blood
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs
United Kingdom - Occupational Exposure Limits	
Local name	Dichloromethane
WEL TWA (mg/m ³)	353 mg/m ³
WEL TWA (ppm)	100 ppm
WEL STEL (mg/m ³)	706 mg/m ³
WEL STEL (ppm)	200 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Dichlorometane
United Kingdom (BEI)	30 ppm Parameter: carbon monoxide - Medium: end-tidal breath - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Pay attention to explosion protection guidelines.

Hand protection:

Protective gloves. This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions. Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves

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Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Neoprene	6 (> 480 minutes)	0,75		EN ISO 374, EN 388
Chemically resistant protective gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)	1,3		EN ISO 374, EN 388

Eye protection:

Protective goggles (EN 166)

Skin and body protection:

Solvent-resistant protective clothing

Respiratory protection:

Wear respiratory protection.

Device	Filter type	Condition	Standard
Breathing apparatus with filter		Short term exposure	
Self contained breathing apparatus		Long term exposure	

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless. Clear.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 39 °C
Flash point	: -25 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: 190 hPa (20°C)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.01118 g/cm ³ (20°C)
Solubility	: Water: Not miscible
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive. Flammable or explosive vapour/air mixtures may be formed.
Oxidising properties	: Not self-igniting.
Lower explosive limit (LEL)	: 1 vol %
Upper explosive limit (UEL)	: 22 vol %

9.2. Other information

VOC content	: 100 %
Solvent content	: > 95%
Ignition temperature	: 250 °C

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SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

No data available.

10.3. Possibility of hazardous reactions

alkali metals.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Vapour/air-mixtures are explosive at intense warming. Heating can release vapours which can be ignited.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Carbon oxides (CO, CO₂). Phosgene. Hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Do not flush into surface water or sewer system
















SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Do not discharge into drains.
Product/Packaging disposal recommendations : Should not be disposed of with household waste. Empty containers should be taken for local recycling, recovery or waste disposal. Packaging that cannot be cleaned should be disposed of like the product.
European List of Waste (LoW) code : 16 05 08* - discarded organic chemicals consisting of or containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1992	UN 1992	UN 1992	UN 1992	UN 1992
14.2. UN proper shipping name				
FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane)	Flammable liquid, toxic, n.o.s. (Dichloromethane)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane)
Transport document description				
UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane), 3 (6.1), II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane), 3 (6.1), II, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 1992 Flammable liquid, toxic, n.o.s. (Dichloromethane), 3 (6.1), II, ENVIRONMENTALLY HAZARDOUS	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane), 3 (6.1), II, ENVIRONMENTALLY HAZARDOUS	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Dichloromethane), 3 (6.1), II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
3 (6.1)	3 (6.1)	3 (6.1)	3 (6.1)	3 (6.1)
  	  	  	  	  
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

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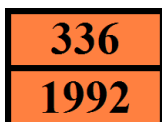
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14.6. Special precautions for user

Overland transport

Classification code (ADR)	: FT1
Special provisions (ADR)	: 274
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02
Mixed packing provisions (ADR)	: MP19
Transport category (ADR)	: 2
Hazard identification number (Kemler No.)	: 336
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: •3WE
APP code	: A(fl)

Transport by sea

Special provisions (IMDG)	: 274
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Flammable toxic liquid which is not specified by name in this class or, on account of its characteristics, in some other class. Toxic if swallowed, by skin contact or by inhalation.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 352
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3HP

Inland waterway transport

Classification code (ADN)	: FT1
Special provisions (ADN)	: 274, 802
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EP, EX, TOX, A
Ventilation (ADN)	: VE01, VE02
Number of blue cones/lights (ADN)	: 2

Rail transport

Classification code (RID)	: FT1
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Transport category (RID)	: 2
Hazard identification number (RID)	: 336

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
28.	F45	Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.
40.	F45 ; Naphtha (petroleum), hydrotreated light	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
59.	Dichloromethane	Dichloromethane

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 100 %

Directive 2012/18/EU (SEVESO III)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5000	50000
E2 Hazardous to the Aquatic Environment in Category Chronic 2	200	500

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard

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IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
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.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 2	H225	On basis of test data
Skin Irrit. 2	H315	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H336	Calculation method
Asp. Tox. 1	H304	
Aquatic Chronic 2	H411	Calculation method

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.