

according to 29 CFR 1910.1200(g)

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1. Identification

Product identifier

WAXILIT 22-74

Recommended use of the chemical and restrictions on use

Relevant identified uses

Lubricant

Uses advised against

Consumer uses: Private households (= general public = consumers)

Sector of uses [SU]: 21

Do not use for private purposes (household).

Relevant identified uses - Further information:

Industrial uses: Uses of substances as such or in preparations at industrial sites

Sector of uses [SU]: 3

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Sector of uses [SU]: 22

The product is intended for professional use.

Details of the supplier of the safety data sheet

Manufacturer

Company name: ACMOS CHEMIE KG Street: Industriestrasse 49 D-28199 Bremen Place: Post-office box:

10 10 69

D-28010 Bremen Telephone: +49 (0)421-5189-0

Telefax: +49 (0)421-511415

e-mail: acmos@acmos.com Contact person: Mr. Stephan Dryhaus Internet: www.acmos.com

Responsible Department: Laboratory (Division: Occupational- / Product security) - see under section 16 01149 (0)551 19240 (Emergency information service / official advisory body: **Emergency phone number:**

Giftinformationszentrum Nord, Universität Göttingen, 24 h from mo. - su.)

Language(s) of Telephone Service: DE, EN

Supplier

Company name: ACMOS Inc.

Street: 1407 York Road, Suite 305 Place: USA-MD 21093 Lutherville

Telephone: 001-410-296-5994 Telefax: 001-410-296-5998

e-mail: acmosinc@acmosinc.com

Contact person: Mr. Reinhard E. Zuber Telephone: 001-410-736-9922

(mobile)

reinhard@acmosinc.com e-mail: Internet: www.acmosinc.com

1-800-424-9300 (CHEMTREC - 24/7 - Within the USA and Canada) Emergency phone number:

Language(s) of Telephone Service: EN, FR

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910,1200

Hazard categories:

Flammable liquids: Flam. Liq. 4 Aspiration hazard: Asp. Tox. 1 Hazard Statements:

Combustible liquid

May be fatal if swallowed and enters airways

Label elements

29 CFR Part 1910.1200

Signal word: Danger



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Pictograms:



Hazard statements

Combustible liquid

May be fatal if swallowed and enters airways

Precautionary statements

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

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Do NOT induce vomiting.

In case of fire: Use Water mist/Extinguishing powder/Foam/Carbon dioxide (CO2) to extinguish.

Store in a well-ventilated place. Keep cool.

Additional advice on labelling

Labeling according to the revised Hazard Communication Standard (HCS 2012) according to 29 CFR 1910.1200(f)

Hazards not otherwise classified

Adverse physicochemical effects:

See section 9 for physical and chemical properties.

This material is combustible, but will not ignite readily.

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Vapours of flammable solvents can accumulate in the gas phase of closed container, especially during heat treatment.

Therefore keep away from fire and sources of ignition.

This material can accumulate static charge by flow or agitation and can be ignited by static discharge.

The product will be applied by spraying.

In use may form flammable/explosive vapour-air mixture.

Adverse human health effects and symptoms:

See section 11 for toxicological information.

Adverse environmental effects:

See section 12 for environmental information.

Other adverse effects:

Special danger of slipping by leaking/spilling product.

Results of PBT-/vPvB-assesment:

See under section 12.5 - Results of PBT and vPvB assessment.

3. Composition/information on ingredients

<u>Mixtures</u>

Chemical characterization

Solution of active ingredients in mineral oil

Hazardous components

CAS No	Components	Quantity
64742-48-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	31.956 %
64742-48-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	23.967 %
13475-82-6	2,2,4,6,6-pentamethylheptane	15.978 %
90622-57-4	hydrocarbons, C11-C12, isoalkanes, <2% aromatics (associated CAS-No. for export to the USA: 64742-48-9)	7.989 %

4. First-aid measures

Description of first aid measures

General information

Remove affected person from the danger area and lay down.

Take off immediately all contaminated clothing and wash it before reuse.

Put victim at rest, cover with a blanket and keep warm.

Do not leave affected person unattended.

If a person vomits when lying on his back, place him in the recovery position.

If breathing is irregular or stopped, administer artificial respiration.

If unconscious place in recovery position and seek medical advice.



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Never give anything by mouth to an unconscious person or a person with cramps.

In the event of cardiac arrest immediately perform cardiopulmonary resuscitation.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Self-protection of the first aider:

Wear personal protection equipment (refer to section 8).

First Aid.

Notes for the doctor:

Aspiration hazard

Risk of product entering the lungs on vomiting after ingestion.

Aspiration may cause pulmonary oedema and pneumonitis.

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

After inhalation

Remove victim out of the danger area.

Provide fresh air.

In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxiloson spray, Pulmicort-dosage-spray.

(Auxiloson and Pulmicort are registered trademarks). Call a physician immediately.

Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

After contact with skin

Wash immediately with:

Water and soap

Rub greasy ointment into the skin.

Do not wash with:

Solvents/Thinner

In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

If present: Initial treatment with Previn. (Previn is a registered trademark).

Protect uninjured eye.

After ingestion

Do NOT induce vomiting.

Give nothing to eat or drink.

Observe risk of aspiration if vomiting occurs.

Never give anything by mouth to an unconscious person or a person with cramps.

Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The following symptoms may occur:

Cough

Dyspnoea

Cyanosis (blue coloured blood)

Pulmonary oedema

Pneumonia

Acidosis

Depression of central nervous system

Headache

Nausea

Drowsiness

Dizziness

Inebriation

Unconsciousness

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

In case of ingestion, the stomach should be emptied by gastric lavage under qualified medical supervision.

Regulation of the blood circulation, possible shock treatment.

Where appropriate artificial ventilation.

Subsequent observance for pneumonia and lung oedema.

5. Fire-fighting measures

Extinguishing media



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Suitable extinguishing media

Water mist

Extinguishing powder (ABC-powder)

Foam

Carbon dioxide (CO2)

Fire class (DIN EN 2): B (Fires of liquids or liquid turning substances).

Unsuitable extinguishing media

High power water jet

Water spray jet

Specific hazards arising from the chemical

In principle, fire gasses of organic materials have to be classified as toxic to the respiratory system.

Burning produces heavy smoke.

Hazardous combustion products:

Carbon monoxide

carbon dioxide (CO2)

Hydrocarbons

Pyrolysis products, toxic

Special protective equipment and precautions for fire-fighters

Usual measures of preventive and averting fire protection.

Co-ordinate fire-fighting measures to the fire surroundings.

Do not inhale explosion and combustion gases.

Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.

Beware of reignition.

Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.

Move undamaged containers from immediate hazard area if it can be done safely.

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control.

Use water spray jet to protect personnel and to cool endangered containers.

 $\label{lem:contaminated} \textbf{Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.}$

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

DIN-/EN-Norms: EN 469 Firefighting protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothes.

Do not breathe vapour/aerosol.

In fine dispersion/spraying/misting: / In case of warming:

Remove all sources of ignition.

Prevent further leakage or spillage if safe to do so.

Remove persons to safety.

Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction.

Provide adequate ventilation.

Special danger of slipping by leaking/spilling product.

For non-emergency personnel:

Use personal protection equipment.

Walk out of the danger zone and notify trained personnel.

Emergency procedures:

Keep the factory emergency plan and the information chain.

For emergency responders:

Use personal protection equipment.

The personal protective equipment must be adapted to the situation.

Suitable material:

See under section 8.2 - Personal protection equipment.

Environmental precautions

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.





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Ensure waste is collected and contained.

Suppress gases/vapours/mists with water spray jet.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Methods and material for containment and cleaning up

For containment:

Repair leaks if without risk.

Move containers from spill area.

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Remove from the water surface (e.g. skimming, sucking).

Cover drains.

For cleaning up:

Clean-up methods - large spillage:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Shovel into suitable container for disposal.

Local authorities should be advised if significant spillages cannot be contained.

Clean-up methods - small spillage:

Clear spills immediately.

Wipe up with absorbent material (eg. cloth, fleece).

Collect in closed and suitable containers for disposal.

Clear contaminated areas thoroughly.

Recommended cleansing agent:

Clean with detergents. Avoid solvent cleaners.

Retain contaminated washing water and dispose it.

Ensure all waste water is collected and treated via a waste water treatment plant.

Ventilate affected area.

Suitable material for taking up:

Sand

Kieselguhr

Universal binder

Absorbing material, organic

Unsuitable material for taking up:

None known

Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Measures to prevent aerosol and dust generation:

It is recommended to design all work processes always so that the following is excluded:

Inhalation of vapours or spray/mists

Eye contact

Skin contact

Technical ventilation of workplace

Vapours are heavier than air.

Provide room air exhaust at ground level.

During filling, metering and sampling should be used if possible:

Splashproof grounded devices

Devices with local exhaust

Use only in a exhaust booth with integrated air filter.

Use in ventilated spray booths only.

Recirculation of exhaust air is not recommended.

Always close containers tightly after the removal of product.

Advice on protection against fire and explosion

Measures to prevent fire:

The product is: Combustible

The formation of combustible vapours is possible at temperatures above: +45 °C (Flash point - 15 °C)

Vapours can form explosive mixtures with air.



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Spray mist may be flammable at temperatures below the flash point.

Provide earthing of containers, equipment, pumps and ventilation facilities.

Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

Use only non-sparking tools.

Take precautionary measures against static discharges.

Only use the material in places where open light, fire and other flammable sources can be kept away.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Usual measures for fire prevention.

Fire-fighting equipment on the basis of class B.

Never use pressure to empty container.

Wear anti-static footwear and clothing

Measures according to German "Explosion rules" required:

Prevention measures regarding formation of explosible atmosphere (restriction and supervision of concentration,

inertisation, airtightness, ventilation, warning device, etc.).

Prevention measures regarding ignition of explosible atmosphere (zone graduation, removing of ignition sources,

explosion-proof electrical installation, earthing, etc.).

Constructive measures for restriction of effects regarding explosions (resistance to pressure of explosions, discharge of pressure of explosions, suppression of explosions, etc.).

Further information on handling

Environmental precautions:

Shafts and sewers must be protected from entry of the product.

Transfer wash-downs in sealed containers.

Provide for retaining containers, eg. floor pan without outflow.

For restriction of emission on volatile organic compounds (VOC) the solvent vapours should be supplied to exhaust air purification facilities (filter, gas washer, incineration).

Advices on general occupational hygiene:

Wear personal protection equipment (refer to section 8).

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

General industrial hygiene practice.

Handle in accordance with good industrial hygiene and safety practice.

Working places should be designed to allow cleaning at any time.

Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Clean spray booth and exhaust hood completely with every product change.

When using do not eat, drink, smoke, sniff.

Thorough skin-cleansing after handling the product.

Used working clothes should not be worn outside the work area.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable floor material:

Floors should be impervious, resistant to liquids and easy to clean.

Protect against:

Heat

Cold

Recommended storage temperature: +10 ... +30 °C

Keep away from:

Food and feedingstuffs

Packaging materials:

Suitable container/equipment material:

Keep/Store only in original container.

Unsuitable container/equipment material:

See under section 8.2 - Hand protection.

Advice on storage compatibility

Do not store together with:

Storage class:

- 1 (Explosive hazardous substances)
- 2 A (Gases)
- 5.1 B (Highly oxidising substances)



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6.2 (Infectious substances)

7 (Radioactive substances)

Further information on storage conditions

Technical measures and storage conditions:

The valid water and zoning ordinances must be observed.

Heating causes rise in pressure with risk of bursting.

Keep away from sources of ignition - No smoking.

Keep in a cool, well-ventilated place.

Keep container tightly closed.

Protect containers against damage.

Ensure adequate ventilation of the storage area.

Store small packages in a suitable, robust cabinet.

Do not store outside.

See also instuctions on the label.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m³	f/cc	Category	Origin
-	C9 - C15 Alkanes		1200		TWA (8 h)	ACGIH-2017
-	C9 - C15 Cycloalkanes		1200		TWA (8 h)	ACGIH-2017

Additional advice on limit values

Country information (EU)

(http://www.dguv.de/ifa/fachinfos/occupational-exposure-limit-values/foreign-and-eu-limit-values/index.jsp)

Country information (USA)

(https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9992&p_text_version=FALSE

National Institute for Occupational Safety and Health - NIOSH (http://cdc.gov/niosh/pel88/pelstart.html) / Occupational Safety and Health Administration - Department of Labour

(http://osha.gov/pls/oshaweb/owasrch.search_form?p_doc_type=SATNDARSp_toc_level=0)

Source of law:

Recommended monitoring procedures:

Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents (BS EN 14042):

Personal air monitoring

Room air monitoring

Test tube

Gas warning system

Preliminary concentration measurements:

Suitable detector tubes for measuring the current concentration in the air at the workplace: DRÄGER test tubes - short-term tubes (http://www.gasmesstechnik.de)

DRÄGER test tubes - Short-term tubes - Petroleum hydrocarbons 10/a (n-octane, measuring range: 10 - 300 ppm, response time: 60 sec) (http://www.gasmesstechnik.de)

DRÄGER test tubes - Short-term tubes - Petroleum hydrocarbons 100/a (n-octane, measuring range: 100 - 2500 ppm, response time: 30 sec) (http://www.gasmesstechnik.de)

Exposure limits at intended use:

DNEL-/PNEC-values:

Risk management measures according to used control banding approach:

Control banding for chemicals according to the ILO CHEMICAL CONTROL TOOLKIT (ICCT): ICCT-Guidelines and Control Guidance Sheets (http://www.ilo.org/legacy/english/protection/safework/ctrl_banding/toolkit/main_guide.pdf)

Used model

Consider appropriate model solutions according to good engineering practices while designing the work process if



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available.

Exposure controls







Appropriate engineering controls

Substance/mixture related measures to prevent exposure during identified uses:

Technical measures to prevent exposure:

Design of appropriate work processes and engineering controls and the use of adequate materials (physical cut-off of man and machine, model solutions as certified working methods, working appliance according to the state of the art, optimisation of process / spray robots, working appliance for prevention of skin contact, models of working times).

Organisational measures to prevent exposure:

Execution of collective protection measures at source and appropriate organisational measures (local exhaust ventilation, ventilation by technical means, general ventilation, measures on averting a danger at breakdowns / at emergencies / after accidents, first aid measures, manner related measures: operating instruction / instruction of employees, occupational medicine health precaution).

Structural measures to prevent exposure:

Execution of individual and personnel protection measures (personal protective equipment - PPE).

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Technical measures and the application of suitable work processes have priority over personal protection equipment.

References for design of technical equipment:

See under section 7.1 - Precautions for safe handling.

Summary of the risk management measures for exposure scenario:

Use only the following product amount per time unit:

No information available.

Minimum room-width and room-height for handling/application:

No information available.

Minimum room ventilation rate for handling/application (air changes per hour):

No information available.

Individual protection measures, such as personal protective equipment

Eye/face protection

If the hazard assessment is required:

Suitable eye protection:

Eye glasses with side protection (EN 166)

Recommended eye protection articles:

UVEX I-VO / UVEX I-3 / UVEX SUPER OTG

Or comparable articles from other companies.

Hand protection

Skin protection:

Preventive skin protection.:

Draw up skin protection programme.

Before starting work, apply solvent-resistant skincare preparations.

e.g. sansibal® / sansibon®, dualin® (PETER GREVEN PHYSIODERM)

Wash hands before breaks and after work.

e.g. ecosan®, topscrub® soft / topscrub® extra / topscrub® nature (PETER GREVEN PHYSIODERM)

After cleaning apply high-fat content skin care cream.

e.g. physioderm® creme, cura soft® / cUrea soft (PETER GREVEN PHYSIODERM)

Apply skin care products after work.

If the hazard assessment is required:

When handling with chemical substances, protective gloves should be worn.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Decrease wearing protection gloves to an inevitable degree to avoid skin rash.

Technical and organizational protective actions have to be preferred.

Breakthrough times and swelling properties of the material must be taken into consideration.





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Check leak tightness/impermeability prior to use.

Wear cotton undermitten if possible.

Change preventive gloves once by hour or use special skin-protective preparations for protective gloves carrier,

e.g. physioderm® proGlove (PETER GREVEN PHYSIODERM)

Take recovery periods for skin regeneration.

Do not wear gloves near rotary machines and tools.

Dispose preventive gloves after defect or expiry of wearing time. Replace when worn.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Wearing time with permanent contact:

Suitable gloves type:

Gloves with long cuffs

Recommended glove articles:

Suitable materials at long term, direct contact (Recommended: Preventive index 6, accordingly > 480 min. permeation time):

Nitrile rubber / NBR (KCL-CAMATRIL VELOURS® - Art. No. 730) - Layer thickness: 0,4 mm

Fluorine rubber / FKM / Viton (KCL-VITOJECT® - Art. No. 890) - Layer thickness: 0,7 mm

Or comparable articles from other companies.

Unsuitable material:

Butyl caoutchouc (butyl rubber)

NR (natural rubber, natural latex)

Wearing time with occasional contact (splashes):

Suitable gloves type:

Disposable gloves

Recommended glove articles:

Suitable materials at short term contact or splash (Recommended: Preventive index 3, accordingly > 60 min. permeation time):

Disposable gloves of special nitrile rubber / NBR (KCL-DERMATRIL® P - Art. No. 743) - Layer thickness: 0.2 mm Or comparable articles from other companies.

The statements are based on self-tests, literary reference and information of glove manufacturers or have been derived from similar substances by analogy.

Source: CHEMIKALIEN-MANAGER - KCL-software for hand protection.

It has to be noticed, that daily time of use of chemical protective gloves may be quite shorter in practice because of many factors of influence (e.g. thermal and mechanical stress as well as special conditions on the floor) than the permeation time determined in accordance to EN 374.

The respective permeation time doubles/halvens at about 1,5 times larger/lower layer thickness.

Declared permeation times are not carried out under practical conditions. Therefore a maximum wearing time up to 50 % of breakthrough time is recommended.

They relate to the pure solvent as mean component.

Barrier creams are not substitutes for body protection.

Skin protection

If the hazard assessment is required:

Suitable protective clothing:

Overall, Natural fibres (e.g. cotton) (EN 340)

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

When handling with chemical substances, protective clothing should be worn.

DIN-/EN-Norms: DIN EN 468

Chemical protection clothing (Disposable suit antistatic)

Type 6 limited splash-tight

Type 5 Particle-tight (method B)

Type 4 Spray-tight

Recommended protective clothing articles:

TYVEK CLASSIC PLUS (DU PONT)

Or comparable articles from other companies.

Chemical resistant safety shoes with conductible sole (EN ISO 20345)

Wash contaminated clothing prior to re-use.

Used working clothes should not be worn outside the work area.





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Street clothing should be stored separately from work clothing.

Thermal hazards:

No thermal hazards during use of this product.

Respiratory protection

If the hazard assessment is required:

Respiratory protection necessary at:

aerosol or mist formation + exceeding exposure limit values +

high concentrations / prolonged exposure / insufficient ventilation / insufficient exhaust

Use only respiratory protection equipment with CE-symbol including four digit test number.

Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m3 (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m³ (0.5 % by vol.); class 3:

maximum permitted contaminant concentration in inhaled air = 10000 mL/m³ (1.0 % by vol.)

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

The use of filter equipment requires a minimum oxygen content of 17 Vol-% in the surrounding atmosphere and that the maximum permitted gas concentration - normally 0,5 Vol-% - is not exceeded.

Suitable respiratory protection apparatus:

Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max, of 4 times the exposure limit, P2 filter: up to a max, of 10 times the exposure limit. P3 filter: up to a max, of 30 times the expo.

Recommended respiratory protection articles:

Half mask or quarter mask with combination filter A1P1/A2P2 for gases, vapors and particles. (EN 140, EN 14387)

Filtering half mask or quarter mask with combination filter FFA1 P1/FFA2P2 for gases, vapors and particles. (EN 405)

Gas filtrating Half-face mask FFA (EN 405)

Model 4251 (FFA1P1 - 1000 ml/m3) / 4255 (FFA2P2SL - 5000 ml/m3) (3M)

Half-face mask or Quarter-face mask with gas filter (EN 140, EN 14387)

Filter type 6051 (A1 - 1000 ml/m3) / 6055 (A2 - 5000 ml/m3) (3M)

Full-face mask with gas filter (EN 136, EN 14387)

Gas filter type: A, Indication colour: brown

Or comparable articles from other companies.

Environmental exposure controls

Environmental exposure controls:

Technical measures to prevent exposure:

Discharge exhaust air only with suitable seperators to atmosphere.

Organisational measures to prevent exposure:

Should not be released into the environment.

Structural measures to prevent exposure:

Use the following recovery and/or abatement technique for cleaning waste gases:

Exhaust air scrubber

Adsorption

Incineration

Further information see under section 6.2 - Environmental precautions.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: liquid
Color: light yellow
Odor: characteristic

Test method

pH-Value: not applicable

Changes in the physical state

Melting point/freezing point: < - 20 °C literature value Initial boiling point and boiling range: > 180 °C literature value

Sublimation point: not applicable Softening point: not applicable



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Pour point: not applicable

Flash point: > 60 °C EN ISO 2719

Flammability

Solid: not applicable (liquid)
Gas: not applicable (liquid)

Explosive properties

Vapour/air-mixtures are explosive at intense warming.

The statements for steam pressure, ignition point and explosion levels apply to the solvent / solvent mixture.

Lower explosion limits:0,5 vol. %literature valueUpper explosion limits:7,0 vol. %literature valueIgnition temperature:> 200 °Cliterature value

Auto-ignition temperature

Solid: Not pyrophoric.
Gas: Not pyrophoric.
Decomposition temperature: not determined

Oxidizing properties

not relevant

Vapor pressure: <1 hPa literature value

(at 20 °C)

Vapor pressure: < 6 hPa literature value

(at 50 °C)

Density (at 20 °C): (6,759 lbs/gal) 0,81 g/cm³ DIN 51757

Bulk density: not applicable (liquid)

Water solubility: practically insoluble: < 0,1 g/L literature value

(at 20 °C)

Solubility in other solvents

miscible with most organic solvents

Partition coefficient: not applicable (Mixtures)
Viscosity / dynamic: not determined

Viscosity / kinematic: <= 20,5 mm²/s DIN 53015

(at 40 °C) Flow time:

(at 23 °C)
/apor density: ~ 5.4 (Air)=1) literature value

Vapor density: (at 25 °C)

Evaporation rate: < 0.1 (n-butyl acetate=1) ASTM D 3539

(at 20 °C)

Solvent separation test: not applicable Solvent content: not determined

Other information

Solid content: not determined

Temperature class (DIN EN 60079-0): T 3 (T > +200 °C ... <= +300 °C) Limiting oxygen concentration (LOC) (DIN EN 14756): No data available

Explosion group: IIA

Maximum experimental safe gap (MESG) (IEC 60079-1-1): > 0,9 mm Minimum ignition current (MIC) (IEC 60079-11): No data available Minimum ignition energy (MIE) (DIN EN 13673-1): No data available

Odour threshold: No data available Molecular weight: ~ 168 g/mol (calculated)

Data apply to the main component.

Conductivity (ASTM D 2624): > 1000 pS/m Surface tension: No data available Fat solubility (g/L): No data available

Calculated oxidation potential of the mixture (OP): not relevant

Substance group relevant properties:

Data relevant with regard to physical hazard classes (supplemental):



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Explosives

not applicable

Flammable gases

Non-flammable. / not applicable (liquid)

flammable aerosols

Non-flammable. / not applicable (liquid)

Oxidising gases

Not oxidising. / not applicable (liquid)

Gases under pressure

not applicable (liquid)

Flammable liquids

Non-flammable.

In use may form flammable/explosive vapour-air mixture.

flammable solids

Non-flammable. / not applicable (liquid)

Self-reactive substances and mixtures

not applicable

Pyrophoric liquids

Not pyrophoric.

Pyrophoric solids

Not pyrophoric. / not applicable (liquid)

self-heating substances and mixtures

not applicable

Substances or mixtures which, in contact with water, emit flammable gases

not applicable

Oxidising liquids

Not oxidising.

Oxidising solids

Not oxidising. / not applicable (liquid)

Organic peroxides

not applicable

Corrosive to metals.

Not corrosive to metals.

10. Stability and reactivity

Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

Chemical stability

Stability:

Stable

The product is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions

Hazardous reactions:

Will not occur

No hazardous reaction when handled and stored according to provisions.

Conditions to avoid

Heat, flames and sparks.

Further information see under section 7.2 - Conditions for safe storage, including any incompatibilities.

Further information see under section 10.5 - Incompatible materials.

Incompatible materials

Violent reaction with:

Oxidising agent, strong

Further information see under section 7.1 - Precautions for safe handling.

Hazardous decomposition products

Does not decompose when used for intended uses.

No known hazardous decomposition products.

Under fire conditions: See under section 5.2 - Special hazards arising from the substance or mixture.

11. Toxicological information

Information on toxicological effects

Route(s) of Entry

Inhalation: X Skin: X

Ingestion: X



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Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

The product has not been tested.

Information on likely routes of exposure /

Symptoms related to the physical, chemical and toxicological characteristics:

See under section 4.2 - Most important symptoms and effects, both acute and delayed.

Exposure route:

In case of ingestion:

Ingestion causes nausea, weakness and central nervous system effects.

Aspiration hazard

The risk of aspiration (penetration of liquids through the oral or nasal cavity into the trachea and lower respiratory system) is restricted solely to accidental ingestion (accident involvement) and not to the inhalation of fine mist (aerosols), as this does not result in juxtaposition of the particles, which could trigger a chemical pneumonia in the lungs.

According to the "qualitative exposure assessment" for as Asp. Tox 1, H304 classified substances and mixtures (without DNEL's) the risk management measures restricting the use of the safety P301+P310 and P331 in the SDS and on the label.

In case of skin contact:

slightly irritant but not relevant for classification.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

In case of inhalation:

slightly irritant but not relevant for classification.

In case of eye contact:

slightly irritant but not relevant for classification.

Conjunctival redness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Not relevant

Interactive effects:

Not relevant

Absence of specific data:

No data is available on the product itself. Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.

However, some datas are not complete regarding particular main components. Nevertheless according to the experience of the manufacturer there are no other hazards expected then those which are already mentioned on the label.

Mixture versus substance information:

Not relevant

Acute toxicity

Based on available data, the classification criteria are not met.



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CAS No	Components								
	Exposure route	Dose		Species	Source	Method			
64742-48-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics								
	oral	LD50 mg/kg	> 5000	Rat	Supplier / ECHA	similar to OECD 401			
	dermal	LD50 mg/kg	> 5000	Rabbit	Supplier / ECHA	similar to OECD 402			
	inhalative (4 h) aerosol	LC50	> 5,6 mg/l	Rat	ECHA	similar to OECD 403			
64742-48-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics								
	oral	LD50 mg/kg	> 5000	Rat	ECHA	similar to OECD 401			
	dermal	LD50 mg/kg	> 2000	Rat	ECHA	similar to OECD 402			
	inhalative (4 h) aerosol	LC50	> 5,6 mg/l	Rat	ECHA	similar to OECD 403			
13475-82-6	2,2,4,6,6-pentamethylheptane								
	oral	LD50 mg/kg	> 5000	Rat	ECHA	similar to OECD 401			
	dermal	LD50 mg/kg	> 3000	Rabbit	Supplier / ECHA	similar to OECD 402			
	inhalative (4 h) aerosol	LC50	> 5,6 mg/l	Rat	ECHA	similar to OECD 403			
90622-57-4	hydrocarbons, C11-C12, isoalkanes, <2% aromatics (associated CAS-No. for export to the USA: 64742-48-9)								
	oral	LD50 mg/kg	> 5000	Rat	Supplier / ECHA	similar to OECD 401			
	dermal	LD50 mg/kg	> 5000	Rabbit	Supplier / ECHA	similar to OECD 402			
	inhalative (4 h) aerosol	LC50	> 5,6 mg/l	Rat	ECHA	similar to OECD 403			

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitizing effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA):

Carcinogenicity (IARC):

Carcinogenicity (ITP):

None of the ingredient of this mixture is listed.

None of the ingredients is listed.

Aspiration hazard

May be fatal if swallowed and enters airways (hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics; hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics; 2,2,4,6,6-pentamethylheptane; hydrocarbons, C11-C12, isoalkanes, <2% aromatics (associated CAS-No. for export to the USA: 64742-48-9))

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Acute (short-term) fish toxicity:

There are no data available on the preparation/mixture itself. The product has not been tested.

Acute (short-term) toxicity to crustacea:

There are no data available on the preparation/mixture itself. The product has not been tested.

Acute (short-term) toxicity to aquatic algae and cyanobacteria:

There are no data available on the preparation/mixture itself. The product has not been tested.

Chronic (long-term) toxicity to crustacea:

There are no data available on the preparation/mixture itself. The product has not been tested. Chronic (long-term) fish toxicity:

There are no data available on the preparation/mixture itself. The product has not been tested.

Toxicity to other aquatic plants/organisms:

No data available (Substances/Ingredient)



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Terrestrial toxicity:

Acute and subchronic bird toxicity:

No data available (Substances/Ingredient)

Bird reproduction toxicity:

No data available (Substances/Ingredient)

Acute earthworm toxicity:

No data available (Substances/Ingredient)

Chronical earthworm toxicity (reproduction):

No data available (Substances/Ingredient)

Useful insect toxicity:

No data available (Substances/Ingredient)

Acute plant toxicity:

No data available (Substances/Ingredient)

Chronic plant toxicity:

No data available (Substances/Ingredient)

Toxicity to soil macroorganisms except of arthropods:

No data available (Substances/Ingredient)

Effects on soil microorganisms:

No data available (Substances/Ingredient)

Behaviour in waste water treatment plants:

Due to its low solubility in water the product is almost completely mechanically separated in biological sewage plants.

Observe local regulations concerning effluent treatment.

Persistence and degradability

Abiotic degradation:

Physicochemical elimination:

Oxidation:

not applicable (Mixtures)

In air a rapid reduction is expected.

The information about ecology refers to the main components.

Hydrolysis:

not applicable (Mixtures)

It is not expected to conversion due to hydrolysis to any significant extent.

The information about ecology refers to the main components.

Photochemical elimination:

Photolysis:

not applicable (Mixtures)

It is not expected to conversion due to photolysis to any significant extent.

The information about ecology refers to the main components.

Ozonolysis:

not applicable (Mixtures)

Biodegradation:

not applicable (Mixtures)

Bioaccumulative potential

not applicable (Mixtures)

Mobility in soil

Surface tension:

See under section 9.1 - Information on basic physical and chemical properties.

Distribution:

Water-air (volatility rate, Henry-constant):

not applicable (Mixtures)

The product is insoluble and floats on water.

The product evaporates slowly.

The information about ecology refers to the main components.

Soil-Water (Adsorption coefficient):

not applicable (Mixtures)

If product enters soil, it will be mobile and may contaminate groundwater.

The information about ecology refers to the main components.

Soil-Air (volatility rate):

not applicable (Mixtures)





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The product evaporates slowly.

The information about ecology refers to the main components.

This product contains one or more hydrocarbon UVCB's. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Other adverse effects

Ozone depletion potential (ODP):

No data available (Substances/Ingredient)

Photochemical ozone creation potential (POCP):

No data available (Substances/Ingredient)

Global warming potential (GWP):

No data available (Substances/Ingredient)

Endocrine disrupting potential:

No data available

AOX: Product does not contain any organic halogens.

13. Disposal considerations

Waste treatment methods

Advice on disposal

Waste treatment options:

Send to a hazardous waste incinerator facility under observation of official regulations.

Dispose of waste according to applicable legislation.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Properties of waste which render it hazardous:

Harmful

Evidence for disposal must be provided.

Consult the appropriate local waste disposal expert about waste disposal.

Waste for recycling is to be classified and labelled.

For recycling, contact recycling exchanges.

May not be disposed or deposited together with domestic garbage.

Do not mix with other wastes.

Do not flush into surface water or sanitary sewer system.

Do not dispose of waste into sewer.

Before discharge in public drains (e.g. residues of washing- and rinsing liquids) please observe the relevant regulations. In case of further questions please contact your waste- or environmental representative or the responsible authority.

Clean IBCs or drums at approved facility only.

The waste producer is resposible for correct coding and designation of his wastes.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

List of proposed waste codes/waste designations in accordance with EWC:

Contaminated packaging

Other disposal recommendations:

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Cleaning by recycling company.

Recommended cleansing agent:

Clean with detergents. Avoid solvent cleaners.

Handle contaminated packages in the same way as the substance itself.

Non-contaminated packages may be recycled.

Packing which cannot be properly cleaned must be disposed of.

As well uncleaned (empty) containers remain contaminated by product residues and may be hazardous by vapours. They have to be disposed by specialists or have to be supplied to a licensed reconditioning.

The conditions of the regional reconditioning companies have to be observed.

14. Transport information

US DOT 49 CFR 172.101

UN/ID number: NA1993

Proper shipping name: COMBUSTIBLE LIQUID, N.O.S. (Distillates (petroleum), hydrotreated light)

Not regulated (in non-bulk-packagings with < 119 US-Gallons)

Transport hazard class(es): Comb liq





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Packing group: III
Hazard label: None

Marine transport (IMDG)

Other applicable information (marine transport)

No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI/IATA-DGR)

Other applicable information (air transport)

No dangerous good in sense of these transport regulations.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

not relevant

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Other applicable information

not relevant

15. Regulatory information

U.S. Regulations

National Inventory TSCA

All intentional used ingrendients of this product are listed in the TSCA-inventory or correspond to TSCA-exceptions on polymers according to 40 CFR 723.

National regulatory information

SARA Section 311/312 Hazards:

2,2,4,6,6-pentamethylheptane (13475-82-6): Fire hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm

Additional information

Delaware - Air Quantity Management List: No data available

Idaho - Air Pollutants List: No data available

Maine - Hazardous Air Pollutants List: No data available Massachusetts - Hazardous Substances: No data available

Michigan - Critical Materials: No data available

Minnesota - Hazardous Substances: No data available

New Jersey - Right-to-Know (RTK) Hazardous Substances, TCPA EHS List: No data available

New York - List of Hazardous Substances: No data available Pennsylvania - Hazardous Substances: No data available

Washington - Permissible Exposure Limits for Air Contaminants: No data available

West Virginia - Toxic Air Pollutant List: No data available

Other regulations, restrictions and prohibition regulations:

European product inventories (Registration status on mixtures):

International chemical inventories (Registration status on substances): No data available

16. Other information



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Hazardous Materials Information Label (HMIS)

Health: 1
Flammability: 2
Physical Hazard: 0
Personal Protection: I

NFPA Hazard Ratings

Health: 1
Flammability: 2
Reactivity: 0
Unique Hazard: ---

 Revision date:
 10.01.2018

 Revision No:
 1,10

Changes

This version replaces all former issues.

Changes made in this revision see section: 1, 3, 4, 6, 7, 8, 9, 11, 12, 15, 16.

Abbreviations and acronyms

ATE: Acute Toxicity Estimate.

CAS: Chemical Abstracts Service.

CLP: Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.

CMR: Carcinogen, Mutagen, or Reproductive Toxicant.

C&L: Classification & Labeling. DNEL: Derived No-Effect Level.

EC50: Effective concentration, 50 percent.

ECHA: European Chemicals Agency.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

FDA: US-Food and Drug Administration.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

HSPA: Hydrocarbon Solvents Producers Association.

IARC: International Agency for Research on Cancer.

IATA: International Air Transport Association.

IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

(International Bulk Chemical Code).

IC50 / ErC50: Inhibitory concentration, 50 percent.

ICAO-TI: International Civil Aviation Organization Technical Instruction.

IMDG-Code: International Maritime Dangerous Goods Code.

IMSBC: International Maritime Solid Bulk Cargoes.

ISO: A standard of International Standards Organisation.

IUCLID: International Uniform Chemical Information Database.

IUPAC: International Union for Pure and Applied Chemistry.

LC50: Lethal concentration, 50 percent.

LD50: Lethal Dose, 50 percent.

log Kow (Pow): octanol-water partition coefficient.

LQ: Limited Quantities.

MARPOL: Maritime Polluntion Convention (Convention for the Prevention of Pollution from Ships).

NTP: National Toxicity Program.

OC: Operational Conditions.

OECD: Organisation for Economic Co-operation and Development.

OSHA: Occupational Safety and Health Agency.

PBT: Persistent, bioaccumulabe and toxic.

PEC: Predicted Effect Concentration.

PNEC: Predicted No-Effect Concentration.

PPE: Personal Protection Equipment.

(Q)SAR: Quantitative-Structure-Activity-Relationship.

RMM: Risk Management Measure.

SARA: Superfund Amendments and Reauthorization Act.

STEL: Short time exposure limit.

STOT - RE: Specific Target Organ Toxicity - Repeated Exposure.

STOT - SE: Specific Target Organ Toxicity - Single Exposure.

TSCA: Toxic Substances Control Act.





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TWA: Time weighted average.

UN: United Nations.

UVCB: Substances of Unknown or Variable composition, Complex reaction products or Biological materials.

vPvB: Very persistent and very bioaccumulable.

WoE: Weight of Evidence.

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

Other data

Key literature references and sources for data:

The classification corresponds to current EC-lists, but is completed by statements of technical literature and company data

Other public accessible sources:

Hazard Communication Standard (HCS 2012) according to 29 CFR 1910.1200 in the valid version in each case

Further information and practical guides on the internet:

eChemPortal (http://www.echemportal.org)

Environmental Protection Agency - EPA (http://www.epa.gov) / ECOTOX-Database (http://cfpub.epa.gov/ecotox)

Recommended restriction of application:

See under section 1.2 - Uses advised against.

Use this product only for intended purpose in accordance with our product informations.

Please refer to our internet website for more information (http://www.acmos.com).

Training advice:

Yearly briefing and instruction of employees by means of of operation instructions according to article 8 of EC-directive 98/24/EC.

Inquiry office: Laboratory (Division: Occupational-/Product security)

Contact person: Mr. Dryhaus (Telephone: +49-421-5189-0, Telefax: +49-421-5189-871)

Office hours: Mo - Th from 7.30 - 16.15 h and Fr from 7.30 - 13.30 h. Out of office hours no call diversion.

Disclaimer:

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The information contained herein are, to our knowledge at the time of their creation to be correct and been taken from sources deemed to be reliable. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release The receiver of our product is singulary responsible for adhering to existing laws and regulations. All descriptions are approximate values, they are not specified for construction of specifications. This safety data sheet does not represent any operating instruction according to national chemical regulations. It may be used for creation, but must not replace it. The employer is not relieved from his duties. All technical information to occupational protection are directed predominately to experts first (safety engineers, occupational medicines).