MATERIAL SAFETY DATA SHEET

According to regulation (EC) Nr. 1907/2006

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

1.1 Product identifier

Trade name: MILRITE-32

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

Uses of the Substance/ Mixture: Industrial Use

Uses advised against: At this moment we have not identified any uses advised against.

1.3 Details of the supplier of the safety data sheet

Company: HPM Technologie GmbH
Rudolf-Diesel-Straβe 3
D-72525 Münsingen

1.4 Details of Distributor:

Company: Carbide Related Technologies, Inc.
355 Sackett Point Road Unit 5
North Haven, CT 06473
Telephone: +1 203-281-1266

Email address: sales@carbiderelatedtech.com

1.5 Emergency telephone number

Emergency telephone Number: (203)281-1266

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to regulation (EC) No. 1272/2008

Regulations (EC) No. 1272/2008			
Hazard Class	Hazard category	Target Organs	Hazard Statements
Aspiration hazard	Category 1	-----	H304

For a full text of the H-statement mentioned in this section, see Section 16.

2.2 Continued – Classifications according to EU Directives

Directive 67/548/EEC or 199 45/EC	
Hazard symbol/ Category of danger	Risk phrases
Harmful (Xn)	R65
	R66

For full text on the R-phrase mentioned in this section, see section 16.

Most important adverse effects:

Human Health: See section 11 for toxicological information
Physical and chemical hazards: See section 9 for physicochemical information
Potential environment effects: See section 12 for environmental information

2.3 Label elements

Labeling according to Regulation EC No 1272/2008

Hazard symbols:

Signal word: Danger
Hazard Statements: H304 may be fatal if swallowed and enters airways.

Precautionary statements
Response: P301 + P310 IF SWALLOWED: immediately call a POISION CENTER or doctor/physician.
P331: do NOT induce vomiting
P405: Store looked up.
P501: Dispose of contents/container to an approved waste disposal plant.

Additional labeling:

EUH066 Repeated exposure may cause skin dryness or cracking.

Hazardous components which must be listed on the label:

- Hydrocarbons, C10-C13, iso-Alkanes, cyclics, <2% aromatics

Hazardous components which must be listed on the label:

- Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclics <2% aromatics

2.4 Other hazards

For results of PBT and vPvB assessment see section 12.5.

3 Composition/information on ingredients

3.1 Mixtures

Chemical nature: Preparation of substances listed below with no hazardous additions.

Hazardous Components	Amount%	Classification (Regulations (EC) No. 1272/2008) Hazard Class. Category	Hazard Statements	Classification (67/548/EWG)
Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics EC-Nr: 918-317-6 Registration: 01-2119474196-32-xxxx	>=50	Asp. Tox. 1	H304	Xn: R65; R66
Hydrocarbons, C10- C13 n-alkanes, isoalkanes, cyclics, <2% aromatics EC-Nr: 918-481-9		Asp. Tox. 1	H304	Xn; R65, R66

Remarks: Benzene <0.1%
For full text on the R-phrases mentioned in this section, see section 16
For full text on the H-statements mentioned in this section, see section 16.

4 First aid measures

4.1 Description of first aid measures

General advice: Move out of dangerous area. Take off contaminated clothing immediately.

If inhaled: Move to fresh air. Oxygen, if needed. Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

In case of skin contact: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If eye irritation persists, consult a physician.

If swallowed: Rinse mouth with water. DO NOT induce vomiting. Risk of aspiration! Call a physician immediately. If a person vomits when laying them on their back, place them into the recover position.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:	Symptoms of overexposure may be headaches, dizziness, tiredness, nausea and vomiting. Inhalation can cause CNS-depression and narcosis. Will dry out skin.
Effects:	Aspiration hazard if swallowed- can enter lungs and cause damage. Aspiration may cause pulmonary edema and pneumonitis.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment:	Treat symptomatically

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media:	High volume water jet

5.2 Special Hazards arising from the substance mixture

Specific hazards during firefighting:	Combustible liquid. Vapors may form explosive mixtures with air. The product is insoluble and floats on water. Incomplete combustion may form toxic pyrolysis products. Fire may cause evolution of: Carbon oxides.

5.3 Advice for firefighters

Special protective equipment for firefighters:	In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
Further information:	Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with skin and eyes. Do not breathe gas/fumes/vapor/spray.

6.2 Environmental precautions

Environmental precautions: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

6.3 Methods and materials for containment and cleaning up

Methods and materials for Containment and cleaning up: Ensure adequate ventilation. Absorb with liquid binding Material (sand, diatomite, acid binders, and universal binders). Treat recovered material as described in the section, “Disposal Considerations.”

7 Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Keep container tightly closed. Avoid inhalation of vapor or mist. Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures: Take off all contaminated clothing immediately. Do not breathe gas/fumes/vapors/spray. Avoid contact with the skin and the eyes. Keep away from food, drink, animal feeding stuffs. Smoking eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage Areas and containers: Keep in an area equipped with solvent resistant flooring. Store in cool place. Keep container tightly closed in a dry and well ventilated place.

Advice on protection against Fire and explosion: Combustible liquid. Possible formation of ignitable mixtures in Air if heated above flash point and/or if

sprayed (atomized). Handle only at temperatures at least 15˚C below the flash point. Keep away from sources of ignition- No smoking. Take measures to prevent the buildup of electrostatic charge.

8 Exposure controls/personal protection

8.1 Control parameters

Component:	C9-C15 Aliphatics
	Occupational Exposure Limit Values
TRGS 900, AGW: 600 mg/m3, (2(11)) Hydrocarbon mixtures, application as solvent (hydrocarbon solvent), additive-free	

8.2 Exposure controls

Appropriate engineering controls
Refer to protective measures listed in sections 7 and 8

Personal protective equipment

Respiratory protection
Advice: Required, if exposure limit is exceeded (e.g. OEL). In case of intensive or longer exposure use self-contained breathing apparatus. Recommended Filter type: combination filters: A-P2.

Hand protection
Advice: Solvent-resistant gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact.) Protective gloves should be replaced at, first signs of wear. The following materials are suitable:

Material:	Nitrile rubber
Break through time:	>=480 min
Glove thickness:	0.45mm

Eye protection
Advice: Tightly fighting safety goggles

Skin and body protection
Advice: Protective work clothing

Environmental exposure controls

General advice:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform respective authorities responsible for such cases.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	liquid
Color:	colorless
Odor:	characteristics
Odor threshold:	no data available
pH:	no data available
Freezing point:	no data available
Boiling point/range:	>180˚ C No data available
Flash point:	61˚-65˚C
Evaporation Rate:	No data available
Flammability (solid, gas):	No data available
Upper explosion limit:	7% (V)
Lower explosion limit:	0.6% (V)
Vapor pressure:	0.5 hPa (20˚C)
Relative vapor Density:	not data available
Density:	0.797g/cm3 (20˚C)
Water solubility:	not respectively poorly mixable

Partition coefficient n-octanol/water:	no data available
auto-ignition temperature:	no data available
Thermal Decomposition:	no data available
Viscosity, dynamic:	No data available
Explosively:	Formation of explosive air/vapor mixture is possible.
Oxidizing properties:	None known

9.2 Other information

No further information available.

10 Stability and Reactivity

10.1 Reactivity

Advice: No decomposition if stored and applied as directed.

10.2 Chemical Stability

Advice: Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Hazardous reactions: Formation of explosive/vapor mixtures is possible.

10.4 Conditions to avoid

Conditions to avoid: Heat, flames and sparks.
Keep away from direct sunlight

10.5 Incompatible materials

Materials to avoid: Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition Products: Fire may cause evolution of: Carbon oxides. Under certain fire conditions, traces of other toxic products cannot be excluded.

11 Toxicological information

11.1 Information on toxicological effect

Acute Toxicity
Oral
For this mixture there is no data available. Please find this information in the listing of the component/components below in the MSDS.
Inhalation
For this mixture there is no data available. Please find this information in the listing of the component/components below in the MSDS.
Dermal
For this mixture there is no data available. Please find this information in the listing of the component/components below in the MSDS.
Irritation
Skin
Results: Repeated exposure may cause skin dryness and cracking
Eyes
Results: Based on available data, the classification criteria are not met.
Sensation
Results: Based on available data, the classification criteria are not met.
CMR effects
CMR properties
Carcinogenicity: For this product currently there is no data available. Based on available data, the classification criteria are not met. Mutagenicity: For this product currently there is no data available. Based on available data, the classification criteria are not met. Reproductive Toxicity: For this product currently there is no data available. Based on available data, the classification criteria are not met.
Specific Target Organ Toxicity
Single exposure
Remark: the substance or mixture is not classified as specific target organ toxicant, single exposure.

Repeated exposure
Remark: the substance or mixture is not classified as specific target organ toxicant, single exposure.
Other toxic properties
Repeated dose toxicity
No data available
Aspiration Hazard
May be fatal if swallowed and enters airways
Component: Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
Acute Toxicity
Oral
LD50 >5000mg/kg (rat, male and female)(OECD-Test Guidline 401) Aspiration may cause pulmonary edema and pneumonitis.
Inhalation
LC50 >5 mg/l (rat, male and female)(OECD-Test Guidline 403) Inhalation may cause central nervous system effects.
Dermal
LD50 >5000 mg/kg (rabbit) (OECD Test Guideline 402)
Component: Hydrocarbons, C10-C13, isoalkanes, cyclics, >2% aromatics
Acute toxicity
Oral
LD50 >5000mg/kg (rat) Data based on test results or data from a comparable product.
Inhalation
LC50 >4,951 mg/l (rat, vapor) (OECD Test Guideline 403) Data based on test results or data from a comparable product.
Dermal
LD50 >5000 mg/kg (rabbit) (OECD Test Guideline 402) Data based on test results or data from a comparable product.

12 Ecological Information

12.1 Toxicity

Component: Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
Acute toxicity
Fish
LL50 1000 mg/l (Oncorhynchus aquabonita; 96h) (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates.
EL50 1000 mg/l (Daphina magna; 48 h) (OECD Test Guideline 202) (Toxicity to daphnia)
Algae
EL50 1000mg/l (Pseudokirchneriella subcapitata (green algae); 72h) (Toxicity to algae: OECD Test Guidelines 201)

Component: Hydrocarbons, C-10-C13, isoalkanes, cyclics, <2% aromatics
Acute toxicity
Fish
LLO >1000 mg/1 (Oncorynchus mykiss (rainbow trout); 96h) (Toxicity to fish)
Toxicity to daphnia and other aquatic invertebrates.
ELO >1000 mg/l (Daphnia magna (water flea; 48 h) (Toxicity to daphnia)
Algae
EL50 >1000mh/l (pseudokirchneriella subcapitata (green algae); 72 h)(toxicity to algae)

12.2 Persistence and degradability

Persistence and degradability
Persistence
Result: no data available
Biodegradability
Result: readily biodegradable.
Component: Hydrocarbons, C-10-C13, n-alkanes, isoalkanes, cyclics, <2 aromatics
Persistence and degradability
Result: Transformation due to photolysis not expected to be significant.
Biodegradability
Result: 80% (Exposure time 28d) Readily biodegradable

12.3 Bio accumulative potential

Component: Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% somatic
Bioaccumulation
Result: no data available
Component: Hydrocarbons, C10-C13, isoalkane, cyclics, <2% aromatics
Bioaccumulation
Result: no data available

12.4 Mobility in soil

Component: Hydrocarbons, C-10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
Mobility
Result: Highly volatile, will partition rapidly to air, not expected to partition to sediment and wastewater solids.
Component: Hydrocarbons, C10-C13, isoalkane, cyclics, <2% aromatics
Mobility
Result: no data available

12.5 Results of PBT and vPvB assessment

Component: Hydrocarbons, C-10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Results of PBT and vPvB assessment	
Result:	This substance is not considered to be persistent, bio accumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bio accumulating (vPvB.)
Component: Hydrocarbons, C10-C13, isoalkane, cyclics, <2% aromatics	
Result:	This substance is not considered to be persistent, bio accumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bio accumulating (vPvB.)

12.6 Other adverse effects

Additional ecological information	
Result:	Do not flush into surface water on sanitary sewer system. Do not allow material to contaminate ground water system.

13 Disposal considerations

13.1 Waste treatment methods

Product:	Disposal together with normal waste is not allowed. Do not let product enter drains. Can be incinerated, when in compliance with local regulations.
Contaminated Packaging:	Empty remaining contents. Do not burn or use a cutting torch on, the Empty drum. Risk of explosion. Empty containers should be delivered To local recyclers for disposal or to the provider for their reutilization In case of being subject to a return and deposit system.
European Waste Catalogue Number:	No waste code according to the European Waste Catalogue. Can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14 Transport information

Not dangerous goods for ADR, RID and IMDG.

14.1 UN number
Not applicable.

14.2 UN proper shipping name
Not applicable.

14.3 Transport hazard class(es)
Not applicable.

14.4 Packaging group
Not applicable.

14.5 Environmental hazards
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II or MARPOL 73/78 and the IBC code
IMDG: Not applicable.

15 Regulatory information

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

WKG (DE):	WGK:1; slightly water endangering; WGK (DE);
Major Accident Hazard Legislation:	Falls under the German StörfallV.13
Other regulations:	Occupational restriction: Take note of Dir 92/85/EEC on the safety and health of pregnant workers at work and of Dir 94/33/EC on the Protection of young people at work.

15.2 Chemical Safety Assessment
Currently we do not have any information from our supplier about this.

16 Other Information

Full text of R-phrases referred to under section 2 and 3

R65 Harmful may cause lung damage if swallowed
R66 Repeated exposure may cause skin dryness or cracking

Full text of H-statements refereed to under sections 2 and 3

H304 May be fatal if swallowed and enters airways
H314 Harmful to aquatic life with long lasting effects.

Further information

Key literature references:	Supplier information and data from the “Database of registered substances” of the European Chemical Agency (ECHA) were used to create this safety data sheet.
Other information:	The information provided in this Safety Data Sheet is correct to our knowledge at the date of revision (24.06.2014). The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.