

MATERIAL SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006 (REACH)

SKY WRITER

Date of issue: 12. 3. 2010

Date of revision:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance or mixture

Trade name: SKY WRITER

1.2. Use of the substance/mixture

SMOKE SYSTEM for PARAMOTORS.

1.3. Company/undertaking identification

Manufacturer: **NIRVANA SYSTEMS s.r.o.**
Address: Jateční 523, 760 01 Zlín
Telephone No.: +420 577226616
Fax: +420 577019117
website: www.nirvana.cz

Competent person responsible for the Safety Data Sheet: info@gracilis.cz

1.4. Emergency telephone

Toxicological Information Centre Prague (TIS), Address: Na Bojišti 1, 128 08 Praha 2
Tel. No.: +420 224 919 293 or +420 224 915 402 or +420 224 914 575 – non stop

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

THE MIXTURE IS NOT CLASSIFIED according to Directives 67/548/EEC and 1999/45/EC.

2.2. Information concerning particular hazards for human and environment

Adverse physicochemical effects:

-

Adverse human health effects:

The mixture is not classified as harmful for human health. The content of compounds soluble in DMSO is < 3 %.

Adverse environmental effects:

The mixture is not classified as harmful for environment. May be harmful for water.

Other hazards:

Symptoms related to application or to possible improper application of the mixture which can be anticipated: The mixture is not intended for other purposes except for those mentioned in this material safety data sheet and/or on its packing. If it is used without complying with directions for use and with the instructions in this safety data sheet, it could cause other types of health risks, property and environment risks than they are mentioned here. Vapours can have a narcotic effect in higher concentrations. At higher temperatures vapours can create an explosive mixture with air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. General description of the components

Mixture is petroleum product with oil character. Mixture of substances and additives listed below, which are dangerous. Other components (if the mixture includes them) either are not dangerous or they are included below the limit for classification of the mixture.

3.2. Dangerous substances

Name	ES (EINECS)	CAS	Symbol	R phrases	Conc. %
Oil- nonspecific *	-	-	-	-	< 100
Decane	204-686-4	124-18-5	-	-	< 5
Undecane	214-300-6	1120-21-4	-	-	< 5
Dodecane	203-967-9	112-40-3	-	-	< 5
Tridecane	211-093-4	629-50-5	-	-	< 5

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* Content of compounds soluble in DMSO is < 3 %. It has no carcinogenic properties.
For the full text of the listed R phrases refer to section 16.

4. FIRST AID MEASURES

4.1. General

In case of health difficulties: sickness or job-related injury or in case of any doubts, notify a physician and provide him the information contained in this safety data sheet. Inform him also about the first aid already provided. In case of unconsciousness, move affected person to stabilized position and keep free of respiratory tract. Never induce vomiting. If the affected person vomits himself, put his head on side and take care to avoid aspiration.

Immediate medical attention is necessary in case of heavy inhalation, ingestion of the mixture or affecting eyes.

4.2. Inhalation

Symptoms: Intoxication appears stinging feeling on chest, headache, nausea, euphoria, disorientation.

Move affection person on fresh air. Start with artificial respiration in case that affection person does not breathe. Seek medical attention.

4.3. Skin contact

Symptoms: Can cause reddening of the skin and drying up.

Immediately take the contaminated clothing off. Wash skin thoroughly with soap and water. In case of skin irritation get medical attention.

4.4. Eye contact

Can cause reddening and pain of eyes.

Immediately rinse eyes with plenty of running water for at least 15 minutes and get medical attention.

4.5. Ingestion

Symptoms: Ingestion can cause inspiration of product to lungs with risk of chemical pneumonitis, lungs oedema and haemorrhage.

Rinse mouth with water in case that person is conscious. If the person vomits himself, put his head on side and take care to avoid aspiration. Do not induce vomiting! Seek immediate medical attention! Show a packing or label of the mixture.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

Water – water shattering, water mist, medium and heavy foams, powders A-B-C-D-and/or B-C (do not use in surrounding with electric equipment), gas – carbon dioxide.

5.2. Extinguishing media which shall not be used for safety reason

Full stream of water - use for cooling of containers in case of risk of explosion.

5.3. Special exposure hazards arising from the substances or mixture itself, combustion products, resulting gases

Fume is evolved in case of fire. Carbon monoxide and carbon dioxide, soot and various hydrocarbons and aldehydes can be created at incomplete combustion and thermolysis. Do not inhale of products of combustion. Escaping (combustible) gases, usually heavier than air, are assembling on lowest places (holes, cellars, downstairs or on floors) and they can flash out or explode in consequence of fire.

5.4. Special protective equipment for fire-fighters

Self-contained breathing apparatus and protective whole-body clothing, protective gloves.

5.5. Others

Cool closed containers exposed to the fire with water or remove container out of reach of the fire. Remains of the fire and contaminated liquids have to be disposed according to legal requirements and local regulations

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

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No smoking. Remove any ignition sources. Exiled everyone form the place who do not participate on rescue works. If it is possible, stay on the windward side.

In case of the escape in closed area, ensure sufficient ventilation, cut off electricity and remove all potential ignition sources. The members of the rescue team must use personal protective equipment, possibly insulated breathing apparatus. Consult the safety measures listed under items 7 and 8. No entrance to unprotected person.

6.2. Environmental precautions

Prevent from any contamination of soil. Prevent from entering into surface water, ground water or sewerage. Utilize all possibilities for enclosing or sealing of the source of leakage. Prevent in further spreading of the leaked preparation in environment by enclosing the place of leakage and by use of absorption materials (VAPEX, EKOSORB, sawdust, etc.). Pump escape of mixture safely into spare containers.

In case of leakage of the mixture into the sewerage or surface water it is necessary to avoid its spreading using water barriers and pumping of the cumulate material away. The components of the mixture have lower density than water and spread on water surface. Remedial works secure with collaboration of state administration authorities. Inform the users of sewerage or endangered water sources and stop their using.

6.3. Methods for cleaning up

Contaminated places cover up with suitable (non-flammable) absorbing material (sand, silica, soil and other absorbing material, etc.). Collect contaminated material into suitable well closed containers and dispose in accordance with item 13. Dispose collected material according to local valid waste legislation. In case of escape of huge amount of the mixture inform fireman.

6.4. Others

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7. HANDLING AND STORAGE

7.1. Handling

Specify precautions for safe handling:

When handling the mixture do no eat, drink and smoke. Prevent from contact with skin, eyes and inhalation of vapour. Degreased skin is suitable to treat with reparation cream. Attend all fire precautions. Prevent from escape of mixture to the environment. Keep in original container. Use personal protective working equipment listed under item 8. Respect valid legal regulations about the protection of human health and safety.

7.2. Storage

Keep in original container. Store in a dry, covered storeroom at the temperature from 15°C to 40°C. Protect against direct sunshine. Protect form freeze. Do not smoke in storage.

7.3. Specific use(s)

Do not manipulate with the mixture in case of open flame. Lighted lamps must be under permanent supervision. Lamps with the mixture must be kept away from the reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limit values

Name	CAS	Limit values			
		Eight hours ⁽¹⁾ mg/m ³ ⁽³⁾	ppm ⁽⁴⁾	Short-term ⁽²⁾ mg/m ³ ⁽³⁾	ppm ⁽⁴⁾
Mineral oil – aerosol		5		10	

⁽¹⁾ Measured or calculated in relation to a reference period of eight-hours time-weighted average.

⁽²⁾ A limit value above which exposure should not occur and is related to a 15-minute period, unless otherwise specified.

⁽³⁾ mg/m³: milligrams per cubic metre of air at 20°C and 101.3 Kpa.

⁽⁴⁾ ppm: parts per million volume in air (ml/m³).

8.2. Exposure controls

8.2.1. Occupational exposure controls

Adhere general measures for protection of health during the work, particularly good ventilation (local exhausting or effective total ventilation). Use a appropriate protection of respiratory system if concentrations could exceed exposure limits. Wash thoroughly your hands with water and soap after work. Use protective cream for skin.

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Respiratory protection

Under the normal conditions is not necessary. Use protective mask with a filter against the organic vapour or self-contained breathing apparatus in case of exposure limit is exceeded or bad ventilation.

Hand protection

Protective gloves from material resistant to effects of hydrocarbons.

Eye protection

Under the normal conditions is not necessary. Use protective goggles in case of squirt danger.

Skin protection

Wash thoroughly contaminated skin. Remove contaminated clothing.

8.2.2. Environmental exposure controls

See 6.2.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance:

Physical state (20°C):

liquid

Colour:

according to specifications of manufacturer

Odour:

according to used odorous essence

9.2. Important health, safety and environmental information

Boiling point/boiling range:

-

Flash point:

-

Explosive properties:

-

Vapour pressure:

-

Relative density (15°C):

-

Solubility:

Miscible with most of the solvents.

Water solubility:

Practically insoluble.

Viscosity (40°C):

-

9.3. Other information

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10. STABILITY AND REACTIVITY

10.1. Conditions to avoid

The mixture is stable under standard (temperature and pressure) conditions. Vapours form explosive mixture with air.

Exposition to high temperature of ignition sources and high pressures can lead to production of flammable and explosive vapours and fire.

10.2. Materials to avoid

Protect from strong oxidative agents (can lead to ignition).

10.3. Hazardous decomposition products

No decomposition under standard conditions of use. Carbon monoxide and carbon dioxide, soot and various hydrocarbons and aldehydes may be created during incomplete combustion and thermolysis.

11. TOXICOLOGICAL INFORMATION

11.1. Acute toxicity

No data are available regarding the mixture itself.

Ingestion:

LD₅₀

3900* > 5000** mg/kg

Through skin:

LD₅₀

> 2000* > 5000 ** mg/kg

Inhalation

LD₅₀

> 2180* mg/m/4 hod

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* according to EU database ECB/ESIS, 2000; ** according to database TOMES/RTECS, Vol.74

Acute toxicity of mixture components:

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11.2. Dangerous-to-health effects from exposure to the substance or mixture:

Inhalation	Inhalation of vapour can lead to irritation of skin, eyes and mucous. Have no narcotic effects.
Ingestion	May cause nausea.
Skin contact	Slightly irritant.
Eye contact	Irritation.
Chronic toxicity:	Unstipulated for mixture.
Sensitisation:	Unstipulated for mixture, it is not probable.
Repeated dose toxicity:	-
Carcinogenicity:	Unstipulated for mixture.
Mutagenicity:	Unstipulated for mixture.
Toxicity for reproduction:	Unstipulated for mixture.
Narcosis:	-

12. ECOLOGICAL INFORMATION

12.1. Ekotoxicity

Acute toxicity of the mixture for water organisms: The mixture is insoluble in water, spreads on the surface; it presents small risk for water.

Acute toxicity of components of the mixture for water organisms:

Fish: LC₅₀, 96 h., *Onchorhynchus mykiss* (trout) > 5000* mg/l

Daphnie: EC₅₀, 48 h., *Daphnia magna* 1000-100000* mg/l

Invertebrate: EC₅₀, 48 h., *Gammarus pulex* > 10000 * mg/l

* according to EU database ECB/ESIS, 2000.

12.2. Mobility

Unstipulated. In accordance with physical and chemical characteristics, the mixture has probably very low mobility in soil.

12.3. Persistence and degradability

Partial biological degradability.

12.4. Bioaccumulative potential

The mixture has bioaccumulative potential.

12.5. Results of PBT assessment

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12.6. Other adverse effects

Protect from the contamination of soil. Prevent from the entering into surface water, ground water or sewerage.

13. DISPOSAL CONSIDERATIONS

13.1. Specify the appropriate methods of disposal of both the substance or / and any contaminated packaging

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There are no wastes in case of proper application of the mixture – it is running out gradually by burning according to instruction for use. Unused rests of the mixture is suitable to run out by the same way described above. Bigger amount of the mixture are disposed as hazardous wastes (by authorized company) – material reclaim as organic solvents or possibly burn in incineration of hazardous waste. Another ways of disposal of this waste are not allowable (e.g. storage, composting, etc.). The packing of the mixture does not belong to municipal waste or plastic waste from foodstuff. It is a hazardous waste, which must be disposed by authorized company. It must be incinerated solely in incineration of a hazardous s waste. The packing is possible to discard in waste only after complete emptying!

Material//waste:

Waste No.

20 01 26 Oil and fat do not mentioned under number 20 01 25 N

Contaminated packaging:

Waste No.

15 01 10 Wastes content residuum of dangerous compounds or packing N
which are contaminated by these compounds.

14. TRANSPORT INFORMATION

ADR/ RID – class

-

UN number: -

Proper shipping name: -

Packing group: -

Other applicable information: -

15. REGULATORY INFORMATION

15.1. Chemical Safety Assessment

Chemical Safety Assessment has been not carried out.

15.2. Health, safety and environmental information shown on the label

The product is not classified according to Directives 67/548/EEC and 1999/45/EC.

Symbol: -

Dangerous substances: -

R-phrases:

-

S-phrases:

-

15.3. Specific provisions in relation to protection of man or the environment at Community level

Directives 67/548/EEC and 1999/45/EC, Regulation (EC) No. 1907/2006 (REACH) as amended.

16. OTHER INFORMATION

16.1. Full text of any R phrases referred to under headings 2 and 3

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16.2. Training advice

Give a briefing to the employees about recommended application method, required protective equipment, first aid and basic manipulation with the mixture.

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16.3. Recommended restriction on use

Without of manufacturer permission, the product must not be used to another purpose than mentioned in chapter 1.

16.4. Sources of key data used to compile the Safety Data Sheet

Directives 67/548/EEC and 1999/45/EC, Regulation (EC) No. 1907/2006 (REACH), as amended.

16.5. Others

Material Safety Data Sheet includes the data for provision of safety, health protection during work and environment protection. Information of this Material Safety Data Sheet concerns just the indicated product, is based on our present knowledge and experiences and are in compliance with the valid legal regulations. The date can not be considered as a guaranty of mixture suitability for specific application. Importer is not responsible for any damages that can be caused by irregular use of the mixture.