Material Safety Data Sheet (MSDS)

Product name: NAU-CLEAN (Aerosol)
Product. No: NAU-NA500/NA360 Version: 4.6 **Print date:**
Specification No: N/A **Rev. date: 20 JAN 2025**

Section 1. PRODUCT & COMPANY INFORMATION

1.1 Product identifier:

1.1.1 Substances

Identification on the label/Trade name: NAU-CLEAN(Aerosol)
EC No.: 929-018-5
Index Number: N/A
Additional identification: N/A

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Relevant identified uses

Use as a component of cleaning products
Use in Cleaning Agents

1.2.2 Uses advised against:

N/A

1.3 Details of the supplier of the safety data sheet:

- Supplier (only representative) : NAUMADE CO., LTD.
Office No.802, 8F, 243 Digital-ro, Guro-gu, Seoul, 08382, Republic of Korea
- E-Mail (competent person) : dmkim@nauclean.com
- Tel : +82-2-887-0820
- Fax : +82-2-887-0830

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes/Hazard categories	Hazard statement	Classification procedure
Flammanle liquid	H226	
Aspiration Toxicity 1	H304	On basis of test data

For full text of H- phrases: see section 2.2.

2.1.2. Classification according to 67/548/EEC or 1999/45/EC

Hazards characteristics
Xn; R65
R66

2.1.3 Additional information:

Full text of R-, H- and EUH-phrases: see section 16.

2.2 Label elements

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

Product identifier:

Substances: N-alkanes

Hazard components for labelling: N/A

Hazard Pictograms:

Signal Word(S): Danger

Hazard Statement:

H226 Flammable liquid and vapor
H304: May be fatal if swallowed and enters airways.

Precautionary statements:

P210 Keep away from heat/spark/ open flames/ hot surface.- No smoking.
P241 Use explosion-proof electrical /ventilating /lighting/ equipment.
P242 Use only non -Sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/ protective clothing / eye protection/ face protection

P303+P361+P353 If on skin(or hair)Remove/ take off immediately contaminated clothing.
Rinse skin with water /shower
P370+P378 In case fire Use… for extinction.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331: Do NOT induce vomiting.
P405: Store locked up.
P501: Dispose of contents/container to...

Supplemental Hazard information (EU):
Additional labelling requirements (CLP supplemental hazard statement):
EUH066: Repeated exposure may cause skin dryness or cracking.

Special rules for supplemental label elements for certain mixtures:
N/A

2.3 Other hazards

Adverse physicochemical effects: N/A
Adverse human health effects and symptoms: N/A
Adverse environmental effects: N/A
Other adverse hazards: N/A

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substances	Synonymes	CAS No.	EC No.	Percentages(%)
N-alkanes	n-alkanes	93924-07-3	929-018-5	70~80
Difluoromonochloroethane	1,Chloro-1,1difluoroethane	75-68-3		12~18
Chlorodifluoromethane	R22	75-45-6		8~12

3.2 Chemical characterization : Mixtures

3.3 Additional information:
N/A

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures:

4.1.1 General informations:
N/A

4.1.2 In case of inhalation:
Move victim to fresh air.
Give artificial respiration if victim is not breathing.
Administer oxygen if breathing is difficult.
Get immediate medical attention.

4.1.3 In case of skin contact:
In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
Remove and isolate contaminated clothing and shoes.
Thoroughly wash (or discard) clothing and shoes before reuse.
Get immediate medical attention.

4.1.4 In case of eyes contact:
In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
Get immediate medical attention.

4.1.5 In case of ingestion:
Never give anything by mouth to an unconscious person.
Get immediate medical attention.

4.1.6 Self-protection of the first aider: N/A

4.1.7 Notes for the doctor: N/A

4.2 Most important symptoms and effects, both acute and delayed
N/A

4.3 Indication of any immediate medical attention and special treatment needed
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Section 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media Small Fires: dry sand, dry chemical, soda ash or lime, water spray, regular foam, CO2

Unsuitable extinguishing mec Do not direct water at spill or source of leak.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:

May be ignited by heat, sparks or flames.

Containers may explode when heated.

Can burn in fire but not readily ignite.

Fire may produce irritating, corrosive and/or toxic gases.

Material is likely to be hazardous by inhalation.

Vapors may cause dizziness or asphyxiation without warning.

5.3 Advice for fire-fighters:

Move containers from fire area if you can do it without risk.
Runoff from fire control or dilution water may cause pollution.
Contact with substance may cause severe burns to skin and eyes.
Dike fire-control water for later disposal; do not scatter the material.
Cool containers with flooding quantities of water until well after fire is out.
Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
Withdraw from area and let fire burn.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Protective equipment: N/A

Emergency procedures:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Stop leak if you can do it without risk.
Be careful of incompatible materials and conditions.
Ventilate the area.
Do not touch or walk through spilled material.
Prevent dusting.

6.1.2 For emergency responders:

Protective equipment: N/A

6.2 Environmental precautions:

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods for containment and cleaning up:

Flush contaminated area thoroughly with water.

Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Dike far ahead of liquid spill for later disposal.

With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

6.4 Reference to other sections:

N/A

6.5 Additional information:

N/A

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

Be careful of incompatible materials and conditions.

Wash skin with soap and water.

See Exposure Controls/Personal Protection section.

Be careful of high temperature

7.1.2 Advice on general occupational hygiene： N/A

7.2 Conditions for safe storage, including any incompatibilities

Store in a closed container.

Store in a cool and dry place.

Be careful of incompatible materials and conditions.

7.3 Specific end use(s):

Recommendations: N/A

Industrial sector specific solutions: N/A

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Occupational exposure limits:

Substance name	Limit value type (country of origin)	Occupational exposure limit value		Empfohlene Überwachungs-verfahren	Peak limitation:	Source
		Long term	Short term			

N-alkanes	AGW (DE)	N.D.	N.D.	N.D.	N.D.	N.D.
	OEL (EU)	N.D.	N.D.	N.D.	N.D.	N.D.

8.1.2 Biological limit values:

Substance name	Limit value type (country of origin)	Limit Value	Investigation parameter	Source	Remark
N-alkanes	BGW (DE)	N.D.	N.D.	N.D.	

8.1.3 Exposure limits at intended us(N/A

8.2 Exposure controls

8.2.1Appropriate engineering controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2 Personal protective equipment：

8.2.2.1 Eye/face protection:

Wear protective eye protection/face protection.

8.2.2.2 Skin protection:

Hand protection: Wear protective gloves(tested to EN374).
Body protection: Wear protectiveprotective clothing.
Other protection: N/A

8.2.2.3 Respiratory protection:

N/A

8.2.2.4 Thermal hazards:

N/A

8.2.3 Environmental exposure controls:

N/A

8.2.4 Consumer exposure control

N/A

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Aerosol

Colour:	Clear colorless
Odour:	Faint odour
Odour threshold:	N.D.
pH:	N.D.
Melting point/range (°C):	Undetermined
Boiling point/range (°C) :	Not applicable, as aerosol
Decomposition temperature (°C)	N.D.
Flash point (°C) :	Not applicable, as aerosol
Ignition temperature (°C) :	Not applicable, as aerosol
Vapour pressure (hPa) at …°C):	N/D.
Vapour density (air=1)	N.D.
Density (g/cm3) at …°C:	0.75 g/cm^3 at 15 °C
Bulk density (kg/m3):	N.D.
Evaporation rate:	N.D.
Water solubility (g/l) at 20°C :	N.D.
Solubility(ies):	N.D.
Partition coefficient	N.D.
n-Octanol/Water (log Po/w) :	N.D.
Viscosity, dynamic (mPa s) :	N.D.

9.2 Physical hazards:

Explosives	Not Explosive
Flammable gases	Not relevant
Flammable aerosols	Not Flammable
Oxidising gases	Not relevant
Gases under pressure	N/A
Flammable liquids	Not Flammable
Flammable solids	Not relevant
Self-reactive substances and mixtures	N/A
Pyrophoric liquids	N/A
Pyrophoric solids	Not relevant
Self-heating substances and mixtures	N/A
Substances or mixtures which, in contact with w	N/A
Oxidising liquids	Not oxidising
Oxidising solids	Not relevant
Organic peroxides	N/A
Metal corrosion	N/A

9.3 Other safety information:

Properties of explosive atmospheres (mixtures): N/A

Section 10. STABILITY AND RELIABILITY

10.1 Reactivity:

N/A

10.2 Chemical stability:

Stable at room temperature and pressure.
Containers may explode when heated.
Can burn in fire but not easily ignited.
Fire may produce irritating, corrosive and/or toxic gases.
Likely to be hazardous by inhalation.
Vapors may cause dizziness or asphyxiation without warning.

10.3 Possibility of hazardous reactions:

N/A

10.4 Conditions to avoid:

All ignition sources (heat, sparks or flames).

10.5 Incompatible materials:

Combustibles
Irritating, and/or toxic gases.

10.6 Hazardous decomposition products:

N/A

Section 11. TOXICOLOGICAL INFORMATION

11.1 Toxicokinetics, metabolism and distribution

Absorption :
pig (dermal absorption study in vitro: from Yorkshire marine pigs) male; Three aliphatic (dodecane, tridecane, and tetradecane) chemicals, major components of JP-8, were investigated for changes in skin lipid and protein biophysics, and macroscopic barrier perturbation from dermal exposure. Percutaneous absorption was examined in vitro using porcine ears (Yorkshire marine pigs, male). Fourier transform infrared (FTIR) spectroscopy was employed to investigate the biophysical changes in stratum corneum (SC) lipid and protein. FTIR results showed that all of the above five components of JP-8 significantly ($P < 0.05$) extracted SC lipid and protein. Macroscopic barrier perturbation was determined by measuring the rate of transepidermal water loss (TEWL).

Distribution :
The tissue disposition after 3 weeks of exposure to dearomatised white spirit, mixed aliphatic, and cycloaliphatic constituents was determined. After 3 weeks of exposure the concentration of total white spirit was 1.5 and 5.6 mg/kg in blood; 7.1 and 17.1 mg/kg in brain; 432 and 1452 mg/kg in fat tissue at the exposure levels of 400 and 800 ppm, respectively. The concentrations of n-nonane, n-decane, n-undecane, and total white spirit in blood and brain were not affected by the duration of exposure. Two hours after the end of exposure the n-decane concentration decreased to about 25% in blood and 50% in brain.

Metabolism :
If C9-C14 aliphatic, < 2% aromatic n-alkanes fluids are absorbed, they are typically metabolized by side chain oxidation to alcohol and carboxylic acid derivatives. These metabolites can be glucuronidated and excreted in the urine or further metabolized before being excreted.

Elimination :
The majority of the metabolites are excreted in the urine and to a lower extent, in the feces. Excretion is rapid with the majority of the elimination occurring within the first 24 hours of exposure. As a result of the lack of systemic toxicity and the ability of the parent material to undergo metabolism and rapid excretion, bioaccumulation of the test substance in the tissues is not likely to occur.

11.2 Information on toxicological effects

Acute toxicity:

	Effect dose	Species	Method	Remark
Acute oral toxicity	LD50: > 5000 mg/kg bw (male/female)	RAT (Sprague-Dawley) male/female	oral: gavage (OECD Guideline 401 (Acute Oral Toxicity))	1 (reliable without restriction) key study
Acute dermal toxicity	LD50: >= 3160 mg/kg bw (male/female)	RABBIT (New Zealand White) male/female	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)	1 (reliable without restriction) key study

Acute inhalative toxicity	LC50 (4 h): >= 6100 mg/m³ air (analytical) (male/female)	RAT (Sprague-Dawley) male/female	inhalation: vapour (whole body) (equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity))	1 (reliable without restriction) key study

Skin corrosion/Irritation:

	Results	Species	Method	Remark
Skin corrosion/Irritation	not irritating	RABBIT (New Zealand White)	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)	1 (reliable without restriction) key study

Serious eye damage/irritation:

	Results	Species	Method	Remark
Serious eye damage/irritation	not irritating	RABBIT (New Zealand White)	OECD Guideline 405 (Acute Eye Irritation / Corrosion)	1 (reliable without restriction) key study

Irrtation to resipiratory tract:
N.D.

Respiratory or skin sensitization:

	Results	Species	Method	Remark
Respiratory or Skin sensitization	not sensitising	GUINEA PIG (P Strain) male/female	Guinea pig maximisation test Induction: intradermal and epicutaneous Challenge: epicutaneous, occlusive equivalent or similar to OECD Guideline 406 (Skin Sensitisation)	2 (reliable with restrictions) key study

CMR effects (carcinogenity, mutagenicity and Toxicity for reproduction)

Carcinogenicity:

	Results	Species	Method	Remark
Carcinogenicity: inhalation	NOAEC : >= 2200 mg/m³ air (nominal) (female) (Highest concentration tested.) NOAEC : 138 mg/m³ air (nominal) (male) (NOAEC is due to male rat specific alpha 2u-globulin nephropathy. Not relevant to humans as they do not have this protein.) Neoplastic effects: no effects	rat (F344/N) male/female	inhalation: vapour 0, 138, 550, 1100, or 2200 mg/m3 (nominal conc.) Exposure: 6 hours plus T90 (12 minutes) per day (5 days per week for 105 weeks) equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)	1 (reliable without restriction) key study
Carcinogenicity: dermal	no NOAEL identified (tumor promotion): 100 % v/v (male) Neoplastic effects: yes	mouse (CD-1) male	Exposure: 3 weeks (The initiator material was applied as a single 25 uL dose to the clipped interscapular area of the back of each mouse 3 times per week for the first 2 weeks. The promoter material was applied as a single 25 uL dose to the clipped interscapular area of the back of each mouse 3 times per week from week 3 to study termination.)	1 (reliable without restriction) supporting study

Mutagenicity:

	Results	Species	Method	Remark
In-vitro genotoxicity	negative	-	Bacterial reverse mutation assay (OECD TG 471) In vitro Mammalian Chromosome Aberration Test (OECD TG 473) In vitro Mammalian Cell Gene Mutation Test (OECD TG 476) Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells (OECD TG 479)	1 (reliable without restriction) key study or 2 (reliable with restrictions) key study

In-vivo genotoxicity	negative	-	Micronucleus Assay in Mouse Bone Marrow (OECD TG 474) Genetic Toxicology: Rodent Dominant Lethal Test (OECD TG 478)	1 (reliable without restriction) key study

Toxicity for reproduction:

	Results	Species	Method	Remark
Effects on fertility	NOAEC (P): >= 1720 mg/m³ air (nominal) (male/female) (300 ppm; No effects to the reproductive system were observed) NOAEC (F1): >= 1720 mg/m³ air (nominal) (male/female) (300 ppm; No effects to the reproductive system were observed)	rat (Sprague-Dawley) male/female	screening inhalation: vapour (whole body) 100 ppm (nominal conc.) 300 ppm (nominal conc.) Exposure: 6 hours/day (5 days/week for 8 weeks) equivalent or similar to OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)	1 (reliable without restriction) weight of evidence read-across from supporting substance (structural analogue or surrogate)
Developmental toxicity	NOAEC (developmental toxicity): >= 1575 mg/m³ air (nominal) (NOAEL >= 900 ppm; No effects were observed at the highest dose tested.)	rat (Sprague-Dawley)	inhalation: vapour (whole body) 100 ppm (nominal conc. (525 mg/m3)) 300 ppm (nominal conc. (1575 mg/m3)) Exposure: 6 hrs/day (days 6-15 of gestation) Guidelines for Reproduction Studies for Safety and Evaluation of Drugs for Human Use, Segment II (Teratology Study)	1 (reliable without restriction) weight of evidence read-across from supporting substance (structural analogue or surrogate)

Summarised evaluation of the CMR properties: N/A

STOT- single exposure:

Single exposure	Specific effects	Affected organs	Remark

Acute oral toxicity	N.D.	N.D.	
Acute dermal toxicity	N.D.	N.D.	
Acute inhalative toxicity	NOAEC for in rats: 1500 to 2500 mg/m3	CNS effects	based primarily on volatility

STOT-repeated exposure:

Repeated exposure	Specific effects	Affected organs	Remark
Sub-acute oral	NOAEL >= 1000 mg/kg bw/day (nominal) (male/female)	-	1 (reliable without restriction) key study
Sub-acute dermal	N.D.	N.D.	
Sub-acute inhalative	N.D.	N.D.	
Sub-chronic oral	NOAEL >= 5000 mg/kg bw/day (nominal) (male/female)	-	1 (reliable without restriction) key study
Sub-chronic dermal	N.D.	N.D.	
Sub-chronic inhalative	NOAEL >= 200 ppm (nominal) (NOAEL >= 1160 mg/m3)	vapour (whole body)	1 (reliable without restriction) key study
Chronic oral	N.D.	N.D.	
Chronic dermal	N.D.	N.D.	
Chronic inhalative	NOAEC >= 400 ppm (female) (NOAEC >= 2320 mg/m) NOAEC: 25 ppm (male)	vapour(kidney-only male)	1 (reliable without restriction) supporting study

Aspiration hazard:
N-alkanes are aspiration hazards and have been assigned the R65 risk phrase (Harmful: may cause lung damage if swallowed), or the classification of STOT Singe Category 3, Aspiration Hazard. These designations relate to the potential for aspiration, a nonquantifiable hazard determined by physical properties that can only occur following accidental oral exposure or non-intended uses.

11.3 Other information:
Subchronic (13 weeks) neurotoxicity: NOAEC for rats: >24.3 g/m3 (6646ppm)

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Aquatic toxicity

	Effect dose	Exposure time	Species	Method	Evaluation	Remark
Acute fish toxicity	LC50 : >10-30 mg/L test mat. (nominal)	96 h	Oncorhynchus mykiss	freshwater semi-static OECD Guideline 203 (Fish, Acute Toxicity Test)	-	1 (reliable without restriction) key study
Acute daphnia toxicity	EC50 : >1000 mg/L test mat. (nominal)	48 h	Daphnia magna	freshwater static The evaluation of the hazards of harmful substances carried by ships. Joint group of experts on the scientific aspects of marine pollution - GESAMP - reports and studies no. 17, 1982.	mobility	2 (reliable with restrictions) key study
Acute algae toxicity	EC50 : >1000 mg/L test mat. (nominal)	72 h	Pseudokirchneriella subcapitata	static OECD Guideline 201 (Alga, Growth Inhibition Test)	growth rate	1 (reliable without restriction) key study

Longterm-Ecotoxicity:

	Effect dose	Exposure time	Species	Method	Evaluation	Remark
Longterm fish toxicity	NOELR : 0.139 mg/L test mat. (nominal)	28 d	Oncorhynchus mykiss	freshwater juvenile fish: growth QSAR modeled data	growth rate	2 (reliable with restrictions) key study

Chronic daphnia toxicity	NOELR : 0.361 mg/L test mat. (nominal)	21 d	Daphnia magna	freshwater QSAR modeled data	reproduction	2 (reliable with restrictions) key study

12.2 Persistence and degradability

Abiotic Degradation

Half-time		Method	Evaluation	Remark
Hydrolysis	N.D.	A technical discussion is provided in the conclusion and executive summary.	N.D.	2 (reliable with restrictions) supporting study
Photolysis	N.D.	A technical discussion is provided in the conclusion and executive summary.	N.D.	2 (reliable with restrictions) supporting study
Water-sediment	N.D.	N.D.	N.D.	
Soil	N.D.	N.D.	N.D.	

Physical- and photo-chemical elimination

Biodegradation:

Deagradation rate (%)	Time (d)	Evaluation	Method	Evaluation	Remark
in water % Degradation of test substance: ca. 10 after 3 d (O2 consumption) ca. 50 after 9 d (O2 consumption) 61.3 after 12 d (O2 consumption) 76.6 after 28 d (O2 consumption) (Percent biodegradation was still increasing.) 76.6 after 30 d (O2	30 d	readily biodegradable	Test type: ready biodegradability activated sludge, domestic, non-adapted OECD Guideline 301 F (Ready Biodegradability : Manometric Respirometry Test)	readily biodegradable	1 (reliable without restriction) key study

12.3 Bioaccumulative potential

Partition coefficient n-octanol /water (log KOW):

N.D.

Bioconcentration factor (BCF):

N.D.

12.4 Mobility in soil

Known or predicted distribution to environmental compartments:

	% to air	% to water	% to soil	% sediment
Calculation according to Mackay, Level III	34.5	3.28	18.49	43.73

Surface tension:
N.D.

Adsorption/Desorption :
Substance is a n-alkanes UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance. However, this endpoint is characterized using quantitative structure property relationships for representative n-alkanes structures that comprise the n-alkanes blocks used to assess the environmental risk of this substance with the PETRORISK model

12.5 Results of PBT and vPvB assessment

N-alkanes were not found to meet the PBT / vPvB criteria. Therefore the PBT/vPvB assessment stops at this point. An exposure assessment and risk characterisation as for a PBT/vPvB substance may however be required if the substance is dangerous in accordance with the classification criteria of Council Directive 67/548/EEC.

12.6 Other adverse effects:
N/A

12.7 Additional information:
N/A

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packagingdisposal

Waste codes / waste designations according to EWC / AVV: N/A

13.1.2 Waste treatment options

13.1.3 Other disposal recommendations: N/A

13.2 Additional information: N/A

Section 14. TRANSPORT INFORMATION

14.1 Sea transport :

UN-Number:	UN1950
UN Proper shipping name:	Aerosol
Transport hazard Class:	2.1
Packaging group:	III
Marine Pollutant:	N/A

Special provision(s): N/A

14.2 Air transport :

UN-Number: UN1950
UN Proper shipping name: Aerosol
Transport hazard Class: 2.1
Packaging group: III
Special provision(s): N/A

14.3 Special precautions for user: Warning : gases

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

N/A

14.5 Additional information:

N/A

Section 15. REGULATORY INFORMATION

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

15.1.1 EU regulations

Authorisations and/or restrictions on use:

Authorisations: N/A
Restrictions on use: N/A

Other EU regulations:

Informations according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline): N/A

15.1.2 National regulations

N/A

15.2 Chemical Safety Assessment:

Section 16. OTHER INFORMATION

16.1 Indication of changes

Version 1.0

16.2 Abbreviations and acronyms:

N/A

16.3 Key literature references and sources for data

Chemical Safety Report - N-alkanes

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1207/2009	Classification procedure
Aspiration Toxicity 1	On basis of test data

16.5 Relevant R-, H- and EUH-phrases (number and full text):

Xn - harmful
R65- Harmful; Harmful: may cause lung damage if swallowed.
R66- Repeated exposure may cause skin dryness or cracking.
H304- May be fatal if swallowed and enters airways.

16.6 Training advice:

N/A

16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

	Registration number(s)	**01-2119475608-26-xxxx**
	Substance identity	**CAS: not applicable, EC No.: 929-018-5**

EXPOSURE ASSESSMENT : As reported in section 3 and detailed in sections 5 and 7 of the chemical safety report, this substance does not meet the criteria for human health or environmental classification. In addition, based on the information provided in section 8 this substance does not meet PBT/vPvB criteria. Therefore, a quantitative assessment is not required. The purpose of the qualitative risk characterisation is to assess:
"the likelihood that effects are avoided when implementing the exposure scenario…" (REACH Annex 1, Section 6.5).
This qualitative CSA approach aims to reduce/avoid contact when there is no basis for setting a DNEL or DMEL for a certain human health endpoint, i.e. when the available data for this effect do not provide quantitative dose-response information, but there exist toxicity data of a qualitative nature. The endpoints for which the available data may trigger a qualitative risk characterisation includes defatting of the skin and aspiration.

Aspiration hazard (R65) qualitative CSA	See CSR section 9.1
Skin defatting hazard (R66) qualitative CSA	See CSR section 9.2
RISK CHARACTERISATION	
Aspiration hazard (R65) qualitative CSA	See CSR section 10.1
Skin defatting hazard (R66) qualitative CSA	See CSR section 10.2