

according to Regulation (EC) No 1907/2006

Nicotine Diluted 7,2%

Product code: Page 1 of 11

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

1.1. Product identifier

Nicotine Diluted 7,2%

Further trade names

This MSDS covers the following products in all container sizes:

Nicotine Diluted 7,2%

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

Use of the substance/mixture

To use in electronic cigarettes.

Consumer use

Uses advised against

not known

1.3. Details of the supplier of the safety data sheet

Company name: Flavour Warehouse LTD Street: Unit 3, 270 Grane Road

Town: Haslingden

England BB4 4QN

Telephone: +441706 550140 Contact person: Adrian Jones

e-mail: sales@vampirevape.co.uk

Regulations

1.4. Emergency telephone

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard categories:

Acute toxicity: Acute Tox. 3

Hazardous to the aquatic environment: Aquatic Chronic ${\bf 3}$

Hazard Statements: Harmful if swallowed. Toxic in contact with skin.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO)

Signal word: Danger

Pictograms:





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Hazard statements

H302 Harmful if swallowed.
H311 Toxic in contact with skin.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.
P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water.

P501 Consult the appropriate authorities about waste disposal.

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity			
	EC No	EC No Index No REACH No					
	Classification according to Regulation (EC) No. 1272/2008 [CLP]						
54-11-5	3-(N-methyl-2-pyrrolidinyl)pyrio	3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO)					
	200-193-3	614-001-00-4					
	Acute Tox. 1, Acute Tox. 3, Aq						

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

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

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

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

Remove contaminated clothing immediatley and dispose off safely. After contact with skin, wash immediately with: Water and soap. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. If eye irritation persists: Get medical advice/attention.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.



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

following inhalation: Dizziness.

If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact: eye defects.

after ingestion: vomiting.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Water spray.

alcohol resistant foam.

dry extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx).

5.3. Advice for firefighters

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

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

Additional information

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

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.

Wear personal protection equipment. (See section 8.)

Do not breathe gas/fumes/vapour/spray.

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

6.2. Environmental precautions

Do not empty into drains.

Discharge into the environment must be avoided.

Inform competent authorities in case of accidental release. (Larger quantities) Consult the appropriate authorities about waste disposal.

6.3. Methods and material for containment and cleaning up

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

Treat the recovered material as prescribed in the section on waste disposal.

Clear contaminated areas thoroughly.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

When using do not eat, drink or smoke. Keep out of the reach of children.



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Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

General protection and hygiene measures: refer to chapter 8

Read label before use.

Keep away from heat.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep locked up. Keep only in the original container in a cool, well-ventilated place. Protect from moisture.

Recommended storage temperature: at room temperature.

Advice on storage compatibility

Do not store together with: Explosives. Gas. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Ammonium nitrate. Combustible toxic substances. Non-combustible toxic substances. Radioactive substances. Infectious substances.

Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. Cold moisture.

7.3. Specific end use(s)

To use in electronic cigarettes.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL
İ		-	-		STEL (15 min)	WEL
54-11-5	Nicotine	-	0.5		TWA (8 h)	WEL
İ		-	1.5		STEL (15 min)	WEL
57-55-6	Propane-1,2-diol, total vapour and particulates	150	474		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

8.2. Exposure controls





Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Protective and hygiene measures

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Remove contaminated clothing immediatley and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be worn outside the work area. Street clothing should be stored seperately from work clothing.



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Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

Hand protection

Wear suitable gloves.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Suitable material:

Butyl rubber. Thickness of glove material: (0,5 mm) FKM (fluororubber). Thickness of glove material: (0,4 mm)

Breakthrough time ~480 min.

penetration time (maximum wearing period): ~160 min.

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

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:.

exceeding exposure limit values

Suitable respiratory protective equipment: Combination filter device (DIN EN 141).. Type: A-(P3)

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, closed-circuit breathing apparatus must be used!

Environmental exposure controls

This material and its container must be disposed of in a safe way.

Do not empty into drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: characteristic

Test method

pH-Value (at 20 °C): not determined

Changes in the physical state

Melting point:

Initial boiling point and boiling range:

Flash point:

101 (3-(N-methyl-2-pyrrolidinyl)pyrid
Sustaining combustion:

No data available

Explosive properties

not explosive.

Lower explosion limits: 0,7 (3-(N-methyl-2-pyrrolidinyl)pyridine, nicotin Upper explosion limits: 4 (3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine Ignition temperature: 240 (3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine

Oxidizing properties

No information available.

Vapour pressure: 0,2 (PG) hPa

(at 20 °C)



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0,00337(VG) hPa Vapour pressure:

(at 50 °C)

Density (at 20 °C): not determined Water solubility: miscible.

Solubility in other solvents

not determined

Partition coefficient: not determined Viscosity / dynamic: not determined

(at 20 °C)

Viscosity / kinematic: not determined

(at 20 °C)

Flow time: not determined Vapour density: not determined not determined Evaporation rate: No information available. Solvent content:

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Protect from moisture. Keep away from heat.

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Harmful if swallowed. Toxic in contact with skin.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
54-11-5	3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO)				
	oral	LD50	70 mg/kg	Rat.	ECHA Dossier
	dermal	LD50	50 mg/kg	Rabbit.	GESTIS



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Irritation and corrosivity

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

3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO):

Irritant effect on the respiratory tract: slightly irritant but not relevant for classification.

Irritant effect on the eye:

Method: OECD Guideline 437 (Bovine Corneal Opacity and Permeability Test Method for Identifying

Ocular Corrosives and Severe Irritants)

Species: in vitro Result: negative.

literature infomation: ECHA Dossier

Irritant effect on the skin: slightly irritant but not relevant for classification.

Sensitising effects

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

3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO):

Skin sensitisation:

Method: OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Species: Mouse Result: negative.

literature infomation: ECHA Dossier

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO):

NOAEL: 1,25 mg/kg (EFSA, 2009)

Carcinogenic/mutagenic/toxic effects for reproduction

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

3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO):

In-vitro mutagenicity: Ames test negative. (Salmonella typhimurium)

[BRAMS,A, BUCHET,JP, CRUTZEN-FAYT,MC, DE MEESTER,C, LAUWERYS,R AND LEONARD,A; A COMPARATIVE STUDY, WITH 40 CHEMICALS, OF THE EFFICIENCY OF THE SALMONELLA ASSAY AND THE SOS CHROMOTEST (KIT PROCEDURE); TOXICOL. LETT. 38(1-2):123-133, 1987]

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
54-11-5	3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO)					
	Acute fish toxicity	LC50	4 mg/l	96 h		GESTIS
	Acute algae toxicity	ErC50	37 mg/l	72 h	Desmodesmus subspicatus	ECHA Dossier
	Acute crustacea toxicity	EC50	0,242 mg/l	48 h	Daphnia magna	ECHA Dossier

12.2. Persistence and degradability



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CAS No	Chemical name					
	Method Value d Source					
	Evaluation					
54-11-5	3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO)					
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C 71% 28 ECHA Dossier					
	Easily biodegradable (concerning to the criteria of the OECD)					

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
54-11-5	3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO)	1,17

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

Waste disposal number of waste from residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing dangerous substances

Classified as hazardous waste.

Waste disposal number of used product

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances Classified as hazardous waste.

Contaminated packaging

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3144

14.2. UN proper shipping name: NICOTINE PREPARATION, LIQUID, N.O.S. (3-

(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO))

14.3. Transport hazard class(es): 6.1



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14.4. Packing group:
Hazard label: 6.1



Classification code: T1
Special Provisions: 43 274
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 2
Hazard No: 60
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 3144

14.2. UN proper shipping name: NICOTINE PREPARATION, LIQUID, N.O.S. (3-(N-methyl-2-pyrrolidinyl)pyridine, nicotine (ISO))

14.3. Transport hazard class(es):6.114.4. Packing group:IIIHazard label:6.1



Classification code: T1

Special Provisions: 43 274 802

Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 3144

14.2. UN proper shipping name: NICOTINE PREPARATION, LIQUID, N.O.S. (Nicotine)

14.3. Transport hazard class(es):6.114.4. Packing group:IIIHazard label:6.1



Marine pollutant: NO

Special Provisions: 43, 223, 274

Limited quantity: 5 L

Excepted quantity: E1

EmS: F-A, S-A

Air transport (ICAO)

14.1. UN number: UN 3144

14.2. UN proper shipping name: NICOTINE PREPARATION, LIQUID, N.O.S. (Nicotine)

14.3. Transport hazard class(es):6.114.4. Packing group:IIIHazard label:6.1



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Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A3 A4 A6

2 L

Y642

Excepted quantity:

E1

IATA-packing instructions - Passenger: 655
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 663
IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): not determined 2004/42/EC (VOC): not determined

Additional information

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

-2012/18/CE (SEVESO III) Annex I, Part 1: none

-REACH 1907/2006 Appendix XVII: 3

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment

restrictions for child bearing mothers and nursing.

Water contaminating class (D): 3 - highly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Rev. 1,0, 25.03.2014

Rev. 1,1 25.06.2015; Changes in chapter: 1-16

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization





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ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level NOAEC: No observed adverse effect level

NTP: National Toxicology Program

N/A: not applicable

OSHA: Concerning the International Transport of Dangerous Goods by Rail)

PNEC: predicted no effect concentration PBT: Persistent bioaccumulative toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de

fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

SARA: Superfund Amendments and Reauthorization Act

SVHC: substance of very high concern TRGS Technische Regeln für Gefahrstoffe TSCA: Toxic Substances Control Act VOC: Volatile Organic Compounds

VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe

WGK: Wassergefährdungsklasse

Relevant H- and EUH-phrases (Number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.

H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)