SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006/EC (REACH),as amended

Date of publication: 7.2.2012
Revision date: 26.4.2017

NITRIC ACID 65%

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifiers

Product name:	**Nitric acid 65%**
Registration No:	01-2119487297-23-0039
Index No:	007-004-00-1
CAS No:	7697-37-2
EC (EINECS) No:	231-714-2
Synonyms:	Acidum nitricum
Molecular weight:	63,01
Formula:	HNO_3

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

Laboratory chemicals, manufacture of substances

1.3 Details of the supplier of the safety data sheet:

Distributor:	Ing. Petr Švec - PENTA s.r.o. Radiová 1122/1 102 00 Praha 10 IN: 020 96 013
Phone:	+420 226 060 681, +420 226 060 697
Fax:	+420 267 008 288
E-mail address:	info@pentachemicals.eu

1.4 Emergency telephone number:

Toxicologic information centre, Na Bojišti 1, 128 08 Praha 2;
tel. +420 224 919 293; +420 224 915 402, e-mail: tis@vfn.cz

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Ox. Liq. 2: H272
Skin Corr. 1A: H314
Met. Corr. 1: H290
Acute Tox. 3: H331

2.2 Lebel elements

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

***Hazard pictograms**:*

Signal word: *Danger*
Index No: 007-004-00-1

Hazard statements:
H272 May intensify fire; oxidiser.
H314 Causes severe skin burns and eye damage.
H290 May be corrosive to metals.
H331 Toxic if inhaled.

Precautionary statements:
P260 Do not breathe vapours.
P280 Wear protective gloves/ protective clothing/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.

EUH071 Corrosive to the respiratory tract.

2.3 Other hazards
None know.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Name	*Assay %*	*Index No*	*CAS- No*	*EC- No*	*Classification*	*Concentration*
Nitric acid	min.65	007-004-00-1	7697-37-2	231-714-2	Ox. Liq.2; H272 Skin Corr.1A; H314 Met. Corr. 1; H290 Acute Tox. 3; H331	Skin Corr. 1A; H314: c ≥ 20 % Ox. Liq. 3; H272: 99% > c ≥ 65 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AND MEASURES

4.1 Description of first aid measures
General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.
If swallowed: Do NOT induce vomiting (risk of perforation). Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
Large doses may cause: conversion of hemoglobin to methemoglobin, producing cyanosis; marked fall in blood pressure, leading to collapse, coma, and possibly death., Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting

4.3 Indication of immediate medici attention and special treatment needed
No information available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguising media

Suitable extinguising media: use extinguishing measures that are appropriate to local circumstances and the surrounding environment - water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguising media: for this substance no limitations of extinguishing agents are given

5.2 Special hazards arising from the substance or mixture

Not combustible material. Ambient fire may liberate hazardous vapours. Fire may cause evolution of nitrogen oxides.

5.3 Advice for firefighters

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Further information:

Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local/national regulations (see section 13).

6.4 Reference to other sections

For disposal see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not store near combustible materials. Store at +5°C to +25°C.
For nitric acid with more than 55%, the permitted use of rigid plastic shall be two years.

7.3 Specific end uses: strong oxidizing agent

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIONS

8.1 Control parameters

Components with workplace control parameters

STEL: 1ppm; : 2,6mg/m^3

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: tightly fitting safety goggles, faceshiled

Skin protection: acid-resistant protective clothing
Hand protection: protective gloves (full contact: Viton ®: thickness - 0,7mm,break through time > 480 min; splash contact: natural latex: thickness - 0,6mm,break through time > 120 mim.)
Respiratory protection: respirator; recommended Filter type: Filter E
Environmental exposure controls: do not empty into drains

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearence

Form:	liquid
Colour:	colourless
Odour:	characteristic
pH:	<1
Melting point/freezing point (°C):	-32
Boiling point (°C):	120,5
Flammability (solid, gas)	not flammable
Flash point (°C):	no data available
Ignition temperature (°C):	no data available
Explosive limits: upper (% V):	no data available
lower (% V):	no data available
Vapour pressure: 20 °C, hPa	9,4
Relative density (20 °C): g/cm^3	1,4
Water solubility (20 °C):	completely soluble
Partition coefficien: n-octanol/water:	log Pow: -2,3
Viscosity (20 °C): mPa.s	0,746
Explosive properties:	no data available
Oxidizing properties:	strong oxidizing agent

9.2 Other safety information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

May discolor on exposure to air and light.

10.5 Incompatible materials

Alkali metals, organic materials, acetic anhydride, acetonitrile, alcohols.

10.6 Hazardous decomposition products

Other decomposition products - nitrogen oxides

SECTION 11: TOXICOLOGIC INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

LD_{50}, oral, rat (mg.kg^{-1}): no data available
LD_{50}, dermal, rabbit (mg.kg^{-1}): no data available
LC_{50}, inhalation, rat (ppm): > 2 650 / 4 h
LDLo human: 430 mg/kg (anhydrous substance)

Skin corrosion/irritation: extremely corrosive
Serious eye damage/eye irritation: causes burns
Respiratory or skin sensitization: no data available
Germ cell mutagenicity: Ames test negative
Carcinogenicity: no data available
Reproductive toxicity: no data available
Specific target organ toxicity - single exposure: is not classified as specific target organ toxicit, single exposure
Specific target organ toxicity - repeated exposure: is not classified as specific target organ toxicit, repeated exposure
Aspiration hazard: no data available

Potential health effects:
Inhalation: may be harmful inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin: may be harmful if absorbed through skin. Causes skin irritation.
Eyes: causes serious eye irritation. Risk of blindness!
Ingestion: may be harmful if swallowed. Tissue damage, mouth, oesophagus, gastrointestinal tract.
Systematic effects: if swallowed death.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish: LC_{50}, 96 hod.: 3 - 3,5 (Lepomis macrochirus), 3,7 (Oncorhynchus mykiss)
Toxicity to daphnia: EC_{50}, 48 hod.: no data available
Toxicity to algae: IC_{50}, 72 hod.: no data available

12.2 Persistence and degradability: biodegradability are not applicable to inorganic substances
12.3 Bioaccumulative potential: bioaccumulation is not expected (log Pow<1)
12.4 Mobility in soil: no data available
12.5 Results of PBT and vPvB assessment: no data available
***12.6 Other averse effects*:** may be harmful to aquatic organisms due to the shift of the pH.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

ADR/RID:
14.1 UN number: 2031
14.2 UN proper shipping name: NITRIC ACID with at least 65% but not more than 70%
14.3 Transport hazard class(es): 8 (5.1)
14.4 Packing group: II
14.5 Environmental hazards (EMS): -
14.6 Special precautions for user: no data available

IMDG: *Marine pollutant:* no
EMS: F-A, S-Q

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

Classification and labeling in accordance with these regulations:
REACH: Regulation of the European Parliament and Council Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended
CLP: Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures, as amended

15.2 Chemical Safety Assessment:

For this product a chemical safety assessment was not carried out.

SECTION 16:OTHER INFORMATION

Revision:

No.1: (31.3.2014) - change of contact details in section No.1
No.2: (26.6.2015) - the odd. 2, 3 and 16 discharges classification **DSD** (Dangerous Substances Directive (67/548 / EEC) - as amended by Regulation 2015/830;
the odd. 1 change email addresses Poisons Information Centre;
No.3: (16.10.2015) - the complement of the sentence EUH071 and the change of the hazard category (Ox.Liq.3 the Ox.Liq.2 (table 3.1, Annex VI to Regulation 1272/2008) - according to the text of Regulation No. 2015/1221
No.4: (16.12.2015) - the odd. 7 complement the information on time use packaging
No.5: (4.11.2016) - the odd. 2, 3 and 16 additions sentences
No.6: (26.4.2017) - the odd. 2, 3 and 16 change the classification and labeling

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

Ox. Liq. 2, 3 (= Oxidizing liquids, category 2, 3)
Skin Corr. 1A (= Skin corrosive, category 1A)
Met. Corr. 1 (Metal corrosive, category 1)
Acute Tox. 3 (=Acute toxicity, category 3)

H272 May intensify fire; oxidiser.
H314 Causes severe skin burns and eye damage.
H290 May be corrosive to metals.
H331 Toxic if inhaled.
EUH071 Corrosive to the respiratory tract.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PENTA company shall not be held liable for any damage resulting from handling or from contact with the above product.