

NOVADAN®**SAFETY DATA SHEET**
CIP Acid KA**NOVADAN®**

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 18.01.2012

Revision date 07.11.2016

1.1. Product identifier

Product name CIP Acid KA

Article no. 12258, 12259, 12260, 12265, 13130, 13132, 55681, 55683

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

Use of the substance/preparation Acidic CIP cleaning agent.

Relevant identified uses SU1 Agriculture, forestry, fishery

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

PC35 Washing and cleaning products (including solvent based products)

PROC2 Use in closed, continuous process with occasional controlled exposure

ERC8A Wide dispersive indoor use of processing aids in open systems

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Company name Novadan ApS

Postal address Platinvej 21

Postcode DK-6000

City Kolding

Country Danmark

Tel + 45 76 34 84 00

Fax + 45 75 50 43 70

E-mail sds@novadan.dk

Website <http://www.novadan.dk>**1.4. Emergency telephone number**Emergency telephone Link to national poison centers:
http://echa.europa.eu/help/nationalhelp_contact_en.asp**SECTION 2: Hazards identification****2.1. Classification of substance or mixture**

Classification according to 67/548/EEC or 1999/45/EC C; R34

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Skin Corr 1A;H314;
Eye Dam. 1;H318;

Substance / mixture hazardous For further information, please refer to section 11.

properties

2.2. Label elements**Hazard Pictograms (CLP)**

Composition on the label

Nitric Acid, Phosphoric acid

Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

2.3. Other hazards

Description of hazard

In contact with compounds containing chlorine, toxic gases may form. Generates strong heat in contact with alkaline compounds, risk of bumping.

Health effect

Corrosive to skin and eyes. May cause permanent damage to the eyes, especially if the product is not washed away IMMEDIATELY. See section 11 for additional information on health hazards.

Environmental effects

Substantial amounts of the product may lead to a local change in acidity in small water systems which may have adverse effects on aquatic organisms. This product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

Substance	Identification	Classification	Contents
Nitric Acid	CAS no.: 7697-37-2 EC no.: 231-714-2 Index no.: 007-004-00-1 Registration number: 01-2119487297-23-xxxx	C,O; R8,R35 Met. Corr. 1;H290; Skin Corr 1A;H314; Ox. Liq. 3;H272;	15 - 30 %
Phosphoric acid	CAS no.: 7664-38-2 EC no.: 231-633-2 Index no.: 015-011-00-6 Registration number: 01-2119485924-24-XXXX	C; R34 Skin Corr 1B;H314; Met. Corr. 1;H290;	1 - 5 %
Substance comments	<5%: cationic surfactant . The full text for all hazard statements is displayed in section 16.		

SECTION 4: First aid measures**4.1. Description of first aid measures**

General

Remove affected person from source of contamination.

Inhalation

Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.

Skin contact

Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if any discomfort continues.

Eye contact

Important! Immediately rinse with water for at least 15 minutes. May cause

Ingestion	permanent damage if eye is not immediately irrigated. Make sure to remove any contact lenses from the eyes before rinsing. Immediately transport to hospital or eye specialist. Continue flushing during transport to hospital. Immediately rinse mouth and drink plenty of water. Call an ambulance. Bring along these instructions. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Do not give victim anything to drink if he is unconscious.
Recommended personal protective equipment for first aid responders	Wear necessary protective equipment. For personal protection, see section 8.

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

Acute symptoms and effects	As described in section 2.2 and 2.3.
Delayed symptoms and effects	The etching penetrates deeply into the tissue and is first noticed after a while.

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

Other Information	In case of unconsciousness, ingestion or eye contact: Immediately call a doctor / ambulance. Show this safety data sheet.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
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5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	This product is not flammable. During fire, gases hazardous to health may be formed. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.
Hazardous combustion products	Toxic gases/vapours/fumes of: Nitrous gases (NO _x).

5.3. Advice for firefighters

Personal protective equipment	Wear necessary protective equipment. For personal protection, see section 8.
Fire fighting procedures	Reference is made to the company fire procedure. If risk of water pollution occurs, notify appropriate authorities. Avoid breathing fire vapours.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Look out! The product is corrosive. Use protective gloves, goggles and suitable protective clothing. In case of inadequate ventilation, use respiratory protection. For personal protection, see section 8.
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6.2. Environmental precautions

Environmental precautionary measures	Avoid discharge into water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.
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6.3. Methods and material for containment and cleaning up

Cleaning method	Dam and absorb spillage with sand, sawdust or other absorbent. Wash contaminated area with water.
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6.4. Reference to other sections

Other instructions	See section 8 and section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Avoid inhalation of vapours and contact with skin and eyes. Use work methods which minimize spreading of vapours, dust, smoke, aerosols, splashes etc. to the extent technically possible. Do not mix with hypochlorite containing products: toxic chlorine vapors may be formed.
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7.2. Conditions for safe storage, including any incompatibilities

Storage Store in tightly closed original container. Keep away from food, drink and animal feeding stuffs. Store away from: Chlorine and Alkalis.

Conditions for safe storage

Storage Temperature **Value:** -20-35 °C

Storage Stability **Durability:** 36 months.

7.3. Specific end use(s)

Specific use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
Nitric Acid	CAS no.: 7697-37-2	8-hour TWA: 5 mg/m ³	
	EC no.: 231-714-2	8-hour TWA: 2 ppm	
	Index no.: 007-004-00-1		
	Registration number: 01-2119487297-23-xxxx		
Phosphoric acid	CAS no.: 7664-38-2	8-hour TWA: 1 mg/m ³	2011
	EC no.: 231-633-2		
	Index no.: 015-011-00-6		
	Registration number: 01-2119485924-24-XXXX		

DNEL / PNEC from substances

Substance	Nitric Acid
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Short term (acute) Type of effect: Local effect Value: 2,6 mg/m ³
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 1,3 mg/m ³
Substance	Phosphoric acid
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 2,92 mg/m ³ Remarks: Supplier MSDS
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 0,73 mg/m ³ Remarks: Supplier MSDS

DNEL / PNEC

Summary of risk management measures, environment Data lacking.

8.2. Exposure controls

Recommended monitoring procedures

Not known.

Limitation of exposure on workplace

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. An eye wash bottle must be available at the work site.

Safety signs



Respiratory protection

Respiratory protection

If ventilation is insufficient, suitable respiratory protection must be provided. Use respiratory equipment with combination filter, type B+E/P3. (EN 143/EN149)

Hand protection

Hand protection

Use protective gloves made of: Butyl rubber. Neoprene. Nitrile. (EN 374)

Breakthrough time

Breakthrough time for nitrile rubber, neoprene and butyl rubber is approx. 3 hours.

The recommendation is a qualified estimate based on knowledge of the components. Elastic gloves stretch when used as glove thickness and thus the breakthrough time reduced.

The EN 374-3 standard test is performed at 23°C, but the practical temperature of the glove is approx. 35°C.

The breakthrough time of the different glove guides, is therefor reduced by a factor 3.

Eye / face protection

Eye protection

Use eye protection. (EN 166).

Skin protection

Skin protection (except hands)

Wear apron or protective clothing in case of contact. Wear rubber footwear.

Thermal hazards

Thermal hazards

See section 5.

Appropriate environmental exposure control

Environmental exposure controls

See section 6.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Fluid.

Colour

Colourless to pale yellow.

Odour

Slightly pungent odour.

Comments, Odour limit

No data recorded.

pH (as supplied)

Value: < 1,0

pH (aqueous solution)

Value: ~ 1,5

Comments, pH (aqueous solution)

1%.

Comments, Melting point / melting range

Not relevant.

Comments, Boiling point / boiling range

Not relevant.

Comments, Flash point

Not relevant.

Comments, Evaporation rate

Not relevant.

Flammability (solid, gas)

Not relevant.

Comments, Explosion limit

Not relevant.

Comments, Vapour pressure	Not relevant.
Comments, Vapour density	Not relevant.
Bulk density	Value: ~ 1,15 kg/l
Solubility description	Completely soluble in water.
Comments, Partition coefficient: n-octanol / water	Not relevant.
Comments, Spontaneous combustability	Not relevant.
Comments, Decomposition temperature	Not relevant.
Viscosity	Value: < 50 mPa s
Explosive properties	Not explosive.
Oxidising properties	Does not meet the criteria for oxidising.

9.2. Other information

Other physical and chemical properties

Comments	No data recorded.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Liberates toxic gases when mixed with chlorine containing products. Reacts with alkalis and generates heat. Reacts strongly with water. Do not add water directly to the product. It may cause a violent reaction. Risk of bumping (splashes).
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10.4. Conditions to avoid

Conditions to avoid	Strong alkalis. Chlorine containing products. Corrodes aluminum and other light metals, as well as zinc, brass, lead, tin, etc.
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10.5. Incompatible materials

Materials to avoid	Alkali-sensitive metals such as aluminium, tin, lead and zinc and alloys with these metals.
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10.6. Hazardous decomposition products

Hazardous decomposition products	In case of fire, toxic gases (CO, CO ₂ , NO _x) may be formed.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

Other toxicological data	Toxicological tests on the product has not been performed.
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Toxicological data for substances

Substance	Nitric Acid
Acute toxicity	Inhalation: Species: Not known. Result: Corrosive to the respiratory tract.
Skin corrosion / irritation	Species: Not known. Method of testing: Not known. Result: Corrosive to skin.
Serious eye damage / irritation	Species: Not known. Method of testing: Not known. Result: Corrosive to eyes.
Respiratory or skin sensitisation	No data recorded.
Substance	Phosphoric acid
LD50 oral	Value: 2600 mg/kg Animal test species: Rat

LD50 dermal	Comments: Supplier MSDS Value: 2740 mg/kg Animal test species: Rabbit Comments: Supplier MSDS
LC50 inhalation	Value: 3846 mg/l Animal test species: Rat Duration: 1h Comments: Supplier MSDS
Skin corrosion / irritation	Species: Rabbit. Result: Corrosive to skin. Method of testing: Not known.
Serious eye damage / irritation	Species: Not known. Result: Corrosive to eyes. Method of testing: Not known.
Respiratory or skin sensitisation	Species: Not known. Result: Not Sensitising. Method of testing: Not known.

Other information regarding health hazards

General This substance is corrosive.

Acute toxicity, Mixture estimate

Assessment of acute toxicity classification No evidence for acute toxicity.

Potential acute effects

Inhalation Aerosols may be corrosive.
Skin contact Strongly corrosive. May cause deep tissue damage.
Eye contact Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative. Contact with concentrated chemical may very rapidly cause severe eye damage, possibly loss of sight.
Ingestion Strongly corrosive. Even small amounts may be fatal. Symptoms are severe burning pains in mouth, throat and stomach. May cause burns in mucous membranes, throat, oesophagus and stomach.
Aspiration hazard No evidence for aspiration hazard.

Delayed effects / repeated exposure

Sensitisation No evidence for respiratory nor skin sensitization.
STOT-single exposure No evidence for STOT-single exposure.
STOT-repeated exposure No evidence for STOT-repeated exposure.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity No evidence for carcinogenicity.
Mutagenicity No evidence for germ cell mutagenicity.
Reproductive toxicity No evidence for reproductive toxicity.

Symptoms of Exposure

Symptoms of overexposure No specific symptoms noted.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms.
Contains nitric acid which when discharged will increase the content of nitrates in the aquatic environment.
Aquatic, comments No data available for the product.

Toxicological data for substances

Substance Nitric Acid
Acute aquatic, fish **Value:** > 100 mg/l
Method of testing: LC50
Species: Fish

Acute aquatic, Daphnia	Duration: 96h Value: > 150 mg/l Method of testing: LC50 Duration: 48h
Mobility, description	Mobility, description: The product is water soluble and may spread in water systems.
Persistence and degradability	The product is readily biodegradable.
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.
Result of PBT assessment for the substance	Not Classified as PBT/vPvB by current EU criteria.
Substance	Phosphoric acid
Acute aquatic, fish	Value: 98-106 mg/l Species: Lepomis macrochirus Duration: 96h Test reference: Supplier MSDS
Acute aquatic, algae	Value: > 100 mg/l Duration: 72h Test reference: Supplier MSDS
Acute aquatic, Daphnia	Value: > 100 mg/l Species: Daphnia Magna Duration: 48h Test reference: Supplier MSDS
Mobility, description	Mobility, description: The product is miscible with water. May spread in water systems.
Persistence and degradability	Not relevant.
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.
Result of PBT assessment for the substance	Not Classified as PBT/vPvB by current EU criteria.

12.2. Persistence and degradability

Persistence and degradability	The product is easily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.
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12.4. Mobility in soil

Mobility	The product is water soluble and may spread in water systems.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
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12.6. Other adverse effects

Environmental details, summation	For this product no classification is required for environmental hazards.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements. -
Product classified as hazardous waste	Yes
Packaging classified as hazardous waste	Yes
EWC waste code	EWC: 0706 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
Other Information	When handling waste, consideration should be made to the safety precautions applying to handling of the product. Waste code applies to product remnants

in pure form.

SECTION 14: Transport information**14.1. UN number**

ADR / RID / ADN	3264
RID	3264
IMDG	3264
ICAO/IATA	3264

14.2. UN proper shipping name

ADR	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid, Phosphoric acid)
RID	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid, Phosphoric acid)
IMDG	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid, Phosphoric acid)
ICAO/IATA	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid, Phosphoric acid)

14.3. Transport hazard class(es)

ADR / RID / ADN	8
RID	8
IMDG	8
ICAO/IATA	8

14.4. Packing group

ADR	III
RID	III
IMDG	III
ICAO/IATA	III

14.5. Environmental hazards

IMDG Marine pollutant	No
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14.6. Special precautions for user

EmS	F-A, S-B
Special safety precautions for user	Not relevant.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**Additional information.**

Additional information.	Not relevant.
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ADR / RID - Other information

Hazard no.	80
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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Other Label Information	For professional users only. As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.
Legislation and regulations	The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation

and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).
EH40/2005, Workplace exposure limits 2005, with amendments.
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents.

15.2. Chemical safety assessment

Chemical safety assessment performed No

SECTION 16: Other information

Hazard symbol



R-phrases

R34 Causes burns.

S-phrases

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

Skin Corr 1A; H314;
Eye Dam. 1; H318;

List of relevant R-phrases (under headings 2 and 3).

R8 Contact with combustible material may cause fire.
R34 Causes burns.
R35 Causes severe burns.

List of relevant H-phrases (Section 2 and 3).

H318 Causes Serious eye damage.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H272 May intensify fire; oxidiser.

Training advice

Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

Information which has been added, deleted or revised

Change to Sections: 1, 16

Version

5

Responsible for safety data sheet

Novadan ApS

Prepared by

ALM