

Trade name: Hacoplast (all types) with plasticizer EPO/ATBC / Category 1**Current version :** 4.1.0, issued: 06.04.2022**Replaced version:** 4.0.0, issued: 07.10.2021**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****Hacoplast (all types) with plasticizer EPO/ATBC / Category 1****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

Industrial Nitrocellulose is used as a binder and or film former in the manufacture of coatings, cosmetics, inks, paints and personal care items.

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**HAGEDORN-NC GmbH
Rheiner Landstraße 195 A
49078 D-OsnabrückTelephone no. +49 (0) 541 94044-0
Fax no. +49 (0) 541 94044-43
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Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone numberFor medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Desen. Expl. 1; H206

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS02

Signal word

Danger

Hazard statement(s)

H206

Fire, blast or projection hazard; increased risk of explosion if desensitising agent is reduced.

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Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P212	Avoid heating under confinement or reduction of the desensitising agent.
P233	Keep container tightly closed.
P243	Take action to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P370+P380+P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P370+P378	In case of fire: Use water to extinguish.

2.3 Other hazards

Heating Industrial NC under confinement may lead to an explosion. Therefore Industrial NC products must never be heated under confinement. Nitrocellulose can be ignited by flame, heat, shock, impact, friction, sparks or static electricity. In cases of fire and decomposition of nitrocellulose, toxic gases may be produced in some circumstances (See section 5).

Nitrocellulose decomposes in contact with strong acids and strong alkalis.

PBT assessment
No data available.

vPvB assessment
No data available.

SECTION 3: Composition/information on ingredients
3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures
Chemical characterization

mixture of nitrocellulose with plasticizer

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	cellulose nitrate (<12.6% N)			
	9004-70-0 - 603-037-00-6 -	Expl. 1.1; H201	>= 70.00 - < 90.00	wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	T	-	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

SECTION 4: First aid measures
4.1 Description of first aid measures
General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. In case of persisting adverse effects, consult a physician.

After inhalation

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a doctor immediately.

After skin contact

Instantly wash with copious amounts of water.

After eye contact

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Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Begin with medical treatment.

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Exposure to vapours or materials of combustion may give rise to headache, dizziness, drowsiness, nausea and delayed breathing difficulties. Eye pain redness, tearing, swelling of eyelids, itching. Prolonged skin contact may result in irritation.

4.3 Indication of any immediate medical attention and special treatment needed

If breathing is difficult or patient show signs of lack of consciousness, seek immediate medical assistance.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Burning nitrocellulose can only be extinguished by large quantities of water applied as mist or spray.

Unsuitable extinguishing media

Sand, CO₂, foam or dry powder will NOT extinguish burning nitrocellulose and must not be used.

5.2 Special hazards arising from the substance or mixture

Burning nitrocellulose may produce toxic fumes in some circumstances. The fumes may contain nitrous gases if there is insufficient oxygen for combustion.

After the fire is extinguished, material may be unstable, could reignite or produce toxic fumes. Therefore ensure that residual material is thoroughly wetted with water.

5.3 Advice for firefighters

Evacuate the area. Fight fire remotely due to the risk of an explosion.

Fire-fighters must work from the windward side and should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not inhale vapours. Keep away from ignition sources.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Spilled nitrocellulose must be thoroughly wetted with plenty of water, swept up carefully and kept in tightly closed watertight container, see section 13. Use tools that do not produce sparks, see section 7.

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

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Do not drop, slide, roll or bang the drums. Keep away from flame, heat, shock, impact, friction, sparks or static electricity.

Do not allow wetted nitrocellulose to dry out, because nitrocellulose becomes more sensitive in the dry state. Keep container tightly closed when not in use.

Ensure adequate ventilation. Pull polyethylene liner, carefully down over the outside of the package.

Ensure package is completely grounded/earthed during emptying.

Do not remove the liner from the package during emptying.

Tools used with nitrocellulose should be of non-ferrous materials such as copper, brass, wood or anti-static plastic. Tools made of standard plastic material must not be used because of their tendency to produce static electricity.

Avoid contact with strong alkaline and acidic materials, amines or oxidising agents.

Keep quantity of product in the processing area to a minimum.

This would not be expected to exceed the amount necessary for one shift.

Do not allow nitrocellulose to enter drains or water courses.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale dust. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing.

Advice on protection against fire and explosion

Handle with caution - Avoid shock, impact and friction. Isolate from sources of heat, sparks and open flame. Take precautionary measures against static charges. Use explosion-proof equipment/fittings and non-sparking tools.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight. Keep away from sources of ignition.

Recommended storage temperature

Value < 40 °C

Storage stability

Comments Nitrocellulose should be used within two years of the date of manufacture. This applies to nitrocellulose stored in original, unopened packages.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Substances to be avoided, see section 10. Do not store with combustible materials.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

No parameters available for monitoring.

8.2 Exposure controls**Appropriate engineering controls**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn. Concentration of solvent in the workplace atmosphere should be monitored. Use effective local exhaust to keep the concentration of damping agents below the exposure limits.

Monitoring Methods:

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours.

Personal protective equipment**Respiratory protection**

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If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166); Face shield

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. anti-static gloves

Appropriate Material	butyl rubber		
Material thickness	>	0.5	mm
Breakthrough time	>	8	h

Other

Fire-resistant antistatic protective clothing. Antistatic shoes

Environmental exposure controls

The material should be used in closed equipment. Keep container tightly closed when not in use. Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation	
solid	
Form/Colour	
Fibre; granules / flakes	
white	
Odour	
odourless	
pH value	
Comments	Test not possible due to the kind of product.
Boiling point / boiling range	
No data available	
Melting point/freezing point	
No data available	
Decomposition temperature	
Value	> 180 °C
Comments	Deflagration temperature of NC wool
Flash point	
No data available	
Ignition temperature	
No data available	
Auto-ignition temperature	
Value	> 180 °C
Explosive properties	
Risk of explosion if heated under confinement.	
Flammability	
highly flammable	
Lower explosion limit	
No data available	

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Upper explosion limit			
No data available			
Vapour pressure			
Value	< 1 mbar		
Reference temperature	20 °C		
Reference substance	Water		
Relative vapour density			
No data available			
Relative density			
No data available			
Density			
Value	> 1 kg/dm ³		
Bulk density			
Value	250 - 600 kg/m ³		
Solubility			
No data available			
Soluble in			
esters; Ketones; glycol ether			
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
log Pow	<	0	
Viscosity			
No data available			
Particle characteristics			
No data available			

9.2 Other information

Other information	
Desensitising Agent:	EPO/ATBC
Exothermic Decomposition Energy:	2930 – 3841 kJ/kg
Corrected Burning rate Ac.:	
These industrial nitrocellulose products have a corrected burning rate (Ac) equal to or greater than 300 kg/min but not more than 1200 kg/min, determined by the test method described in subsection 51.4 of the UN Recommendations	

SECTION 10: Stability and reactivity

10.1 Reactivity

Industrial nitrocellulose products show a limiting diameter of >2 mm in the test series 2(b) Koenen Test of the UN Manual of Tests and Criteria. This test result shows that industrial nitrocellulose products are sensitive to heating under confinement. Heating Industrial nitrocellulose under confinement may lead to an explosion. Therefore industrial nitrocellulose products must never be heated under confinement.

If allowed to dry out, industrial nitrocellulose becomes significantly more sensitive to heat, friction and static electricity. The burning rate of dry nitrocellulose is approximately 50 times that of 30% solvent damped material.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Exothermic reactions are possible in the event of contact with incompatible substances.

10.4 Conditions to avoid

Heat, naked flames or other ignition sources, electrostatic charge and discharge, formation of vapours/aerosols. Prevent evaporation of the moistening agent.

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10.5 Incompatible materials

Alkalis; corrosive substances; Amines; Oxidizing agents

10.6 Hazardous decomposition products

In case of fire: see section 5.

SECTION 11: Toxicological information
11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute oral toxicity

No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
LD50	>	5000	mg/kg bodyweight
Species	rat		

Acute dermal toxicity

No data available

Acute inhalational toxicity

No data available

Skin corrosion/irritation

No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
Duration of exposure		4	h
Species	rabbit		
Method	OECD 404		
Evaluation	non-irritant		

Serious eye damage/irritation

No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
Duration of exposure		24	h
Species	rabbit		
Method	OECD 405		
Evaluation	non-irritant		

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Information on other hazards
Endocrine disrupting properties

No data available.

Other information

No data available.

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SECTION 12: Ecological information
12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
LC50	>	5000	mg/l
Duration of exposure		96	h
Species	Brachydanio rerio		
Method	OECD 203		

Toxicity to fish (chronic)			
No data available			

Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
EC50	>	10000	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Source	OECD 202		

Toxicity to Daphnia (chronic)			
No data available			

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
EC50	>	10000	mg/l
Duration of exposure		78	h
Species	Algae		
Method	OECD 201		

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
EC50	>	10000	mg/l
Species	bacteriae		
Method	OECD 209		

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
Value	appr.	20	%
Duration		28	day(s)
Method	OECD 301 B		
Type	COD		
Value		460	mg/L
Method	DIN 38409 T.41		
Type	BOD		
Value		0	mgO ₂ /l
with reference to	20 mg/l		
Method	DIN 38409 H51		

12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-

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Evaluation/classification	no evidence for bioakkumulation		
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
log Pow	<	0	

12.4 Mobility in soil

Mobility in soil			
No	Substance name	CAS no.	EC no.
1	cellulose nitrate (<12.6% N)	9004-70-0	-
Evaluation/classification	Nitrocellulose is insoluble in water and will not be mobile in soil.		

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	No data available.
vPvB assessment	No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

It is recommended that small quantities of nitrocellulose should be dissolved prior to destruction as waste NC-lacquer. European Waste Catalogue (EWC) 08 01 11.

Waste disposal should be in accordance with national, state and local environmental regulations.

Sewage disposal shall be discouraged. Do not allow into drains or water courses.

Packaging

Empty package retains hazardous residue. Observe all label precautions. Keep away from heat, sparks and flames.

Do not weld or use cutting torch on or near the package.

With the earth/ground clip still in place, fold the liner into the empty package. Remove the earth clip and replace the lid of the drum or close the box.

Transfer the package to a non-hazardous area and remove the bag for disposal. The bag will contain a residue of nitrocellulose and must be disposed of as hazardous waste. Ensure that the residual nitrocellulose in the bag does not dry out before disposal.

Remove all labels from the package. Then offer the package for recycling/reconditioning or puncture or otherwise destroy empty package and dispose of in a facility permitted for non hazardous waste.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	4.1
Classification code	D
Packing group	II
UN number	UN2557
Proper shipping name	NITROCELLULOSE, MIXTURE WITH PLASTICIZER, WITHOUT PIGMENT
Tunnel restriction code	B
Label	4.1

14.2 Transport IMDG

Class	4.1
Packing group	II
UN number	UN2557
Proper shipping name	NITROCELLULOSE, MIXTURE WITH PLASTICIZER, WITHOUT PIGMENT

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EmS Label F-B, S-J
4.1

14.3 Transport ICAO-TI / IATA

Class 4.1
Packing group II
UN number UN2557
Proper shipping name Nitrocellulose, mixture with plasticizer, without pigment
Label 4.1

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is not subject to Part 1 or 2 of Annex I.

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H201 Explosive; mass explosion hazard.

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This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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