

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### **SECTION 1: Identification**

#### 1.1. Identification

Product form : Mixture

Product name : NQ Cotton Isopropanol Wetted

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Industrial use in the manufacture of paints and varnishes

Restrictions on use : Industrial use

#### 1.3. Supplier

#### Manufacturer

Companhia Nitro Química Brasileira 951 Av. Doutor José Artur Nova, 951 São Paulo, 08090-000 - Brasil T +55 (11) 2246-3100

ssma@nitroquimica.com.br - www.nitroquimica.com.br

#### 1.4. Emergency telephone number

Emergency number : +55 11 9814-90850 and +55 11 9814-90849

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

#### **GHS US classification**

Flammable solids, Category 1

Serious eye damage/eye irritation, Category 2 Causes serious eye irritation.

Specific target organ toxicity — Single exposure, Category 3, Narcosis May cause drowsiness or dizziness.

#### 2.2. GHS Label elements, including precautionary statements

#### **GHS US labelling**

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : Flammable solid.

Causes serious eye irritation. May cause drowsiness or dizziness.

Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

Keep wetted with alcohol.

Ground/Bond container and receiving equipment. Use only outdoors or in a well-ventilated area.

Use explosion-proof electrical, lighting, ventilating equipment.

Wear protective gloves, protective clothing, eye protection, face protection.

Avoid breathing mist, vapours.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Call a POISON CENTER, a doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.

In case of fire: Use water mist to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in accordance with local regulations.

Dispose of contents/container to a hazardous or special waste collection point.

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#### 2.3. Other hazards which do not result in classification

Heating Industrial Nitrocellulose under confinement may lead to an explosion. Therefore Industrial Nitrocellulose 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.

Nitrocellulose decomposes in contact with strong acids and strong alkalis.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Nitrocellulose (<12,6% N)	(CAS-No.) 9004-70-0	68 – 72	Expl. 1.1, H201
Isopropanol	(CAS-No.) 67-63-0	28 – 32	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336

Full text of hazard classes and H-statements : see section 16

# **SECTION 4: First-aid measures**

4.1	Doscri	intion	of firet	hic	measures

First-aid measures general : If you feel unwell, seek medical advice.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON

CENTER/doctor if you feel unwell. Remove person to fresh air and keep comfortable for

breathing.

First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately

with plenty of water. Wash skin with plenty of water.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

First-aid measures after ingestion : Do NOT induce vomiting. Rinse mouth out with water. Call a poison center or a doctor if you

feel unwell.

## 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Causes serious eye irritation.

Symptoms/effects after inhalation : Dust of the product, if present, may cause respiratory irritation after an excessive inhalation

exposure. Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and

difficulty in breathing.

Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in

combination with tight clothing. irritation (itching, redness, blistering).

Symptoms/effects after eye contact : stinging. Redness. Eye irritation. Causes serious eye irritation. redness, itching, tears.

Singing. Neurosa. Lye initiation. Padases serious cye initiation. Tearless, iterining, tear

Symptoms/effects after ingestion : May cause irritation to the digestive tract.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable (and unsuitable) 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. Specific hazards arising from the chemical

Fire hazard : Flammable solid. In case of fire and/or explosion do not breathe fumes.

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Explosion hazard

: Risk of explosion by shock, friction, fire or other sources of ignition. Avoid raising powdered material due to explosion hazard. Explosion risk in case of fire.

Hazardous decomposition products in case of

: 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. Special protective equipment and precautions for fire-fighters

Precautionary measures fire

: Minimize generation of dust which may be combustible. Local exhaust is needed at source of dust. Keep container closed when not in use.

Firefighting instructions

: Evacuate area. Get the package away from the fire if this can be done without risk. Fight fire from a safe distance or use hoses with support or cannon engine. Cool laterally with water containers exposed to flames, even after the fire is extinguished. Do not enter fire area without proper protective equipment, including respiratory protection. Do not fight fire when fire reaches explosives.

Protection during firefighting

: Use self-contained breathing apparatus and chemically protective clothing. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.

Complete protective clothing.

Other information : In case of fire, corrosive and harmful gases come free.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

**Emergency procedures** 

: No flames, no sparks. Eliminate all sources of ignition. Do not touch or walk on the spilled product. Evacuate area. Only qualified personnel equipped with suitable protective equipment may intervene. Notify fire brigade and environmental authorities. No open flames, no sparks, and no smoking.

#### 6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. Use self-contained breathing apparatus and chemically protective clothing. Gloves. Wear security glasses which protect from splashes. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection". Self-contained breathing apparatus. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product. Corrosionproof suit.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment

: Spilled nitrocellulose must be thoroughly wetted with plenty of water, swept up carefully and kept in tightly closed watertight container.

Methods for cleaning up

: Mechanically recover the product. Notify authorities if product enters sewers or public waters.

Other information

: Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling

: 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 wetted with isopropanol.

If nitrocellulose has dried out, immediately re-damp with isopropanol 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.

Do not eat, drink and smoke in work areas.

Wash hands after use and remove contaminated clothing and protective equipment before

entering eating areas.

Hygiene measures

: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures

- : Ground/bond container and receiving equipment.
- Storage conditions : The storage should be in accordance with national, state and local environmental regulations.

Store in a cool and well ventilated place appropriate to the packaging material. Keep in original containers. Maximum recommended continuous storage temperature is 40°C

Keep away from heat including direct sunlight, flame or any source of ignition. Do not smoke in the storage area.

Nitrocellulose is not to be stored together with incompatible materials for instance strong alkaline and acidic materials, amines or oxidising agents.

Nitrocellulose should not be stored together with flammable liquids.

Rotate inventory on a "First in/first out" basis. (Date of manufacture is printed on the container label).

Nitrocellulose should be used within one year of the date of manufacture.

Once a package has been opened, the entire contents should be used as quickly as possible.

Do not open or empty containers within the storage area.

Incompatible products : Strong alkaline and acidic materials, amines or oxidising agents..

Incompatible materials : Combustible materials.

Storage temperature : < 45 °C

Packaging materials : Store always product in container of same material as original container.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

NQ Cotton Isopropanol Wetted		
USA - ACGIH - Occupational Exposure Limits		
Local name	2-Propanol	
ACGIH TWA (ppm)	200 ppm	
ACGIH STEL (ppm)	400 ppm	
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI	
Regulatory reference	ACGIH 2020	
USA - OSHA - Occupational Exposure Limits		
Local name	Isopropyl alcohol	
OSHA PEL (TWA) (mg/m³)	980 mg/m³	
OSHA PEL (TWA) (ppm)	400 ppm	

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Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1	
Isopropanol (67-63-0)		
USA - ACGIH - Occupational Exposure Limits		
Local name	2-Propanol	
ACGIH TWA (ppm)	200 ppm	
ACGIH STEL (ppm)	400 ppm	
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI	
Regulatory reference	ACGIH 2020	
USA - OSHA - Occupational Exposure Limits		
Local name	Isopropyl alcohol	
OSHA PEL (TWA) (mg/m³)	980 mg/m³	
OSHA PEL (TWA) (ppm)	400 ppm	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1	
Nitrocellulose (9004-70-0)		
No additional information available		

## 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

## Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## Personal protective equipment symbol(s):



# SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state: SolidAppearance: Flakes.Colour: White

Odour : Characteristic odour

Odour threshold : 0.442 ppm
pH : No data available
Melting point : No data available
Freezing point : Not applicable
Boiling point : 82.3 °C
Flash point : 11.7 °C

Relative evaporation rate (butylacetate=1) : No data available

Relative evaporation rate (ether=1) : 11

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Flammability (solid, gas) : Flammable.

Vapour pressure : 33 mm Hg

Relative vapour density at 20 °C : 2.1

Relative density : Not applicable
Solubility : Insoluble in water.

Partition coefficient n-octanol/water (Log Pow) : 0.05

Auto-ignition temperature : 180 °C

Decomposition temperature : 180 °C

Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive limits : 2 – 12 vol %

Explosive properties : Risk of explosion if heated under confinement.

Oxidising properties : No data available

#### 9.2. Other information

No additional information available

#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Industrial nitrocellulose products show a limiting diameter of 20 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

Dust may form flammable and explosive mixture with air.

#### 10.3. Possibility of hazardous reactions

Nitrocellulose decomposes when in contact with strong alkaline and acidic materials, amines or oxidizing agents.

#### 10.4. Conditions to avoid

Avoid exposure to heat, flame, sparks, shock and friction. Stability decreases and deterioration starts with increasing temperatures. Do not allow evaporation of the damping agent.

Observe recommended storage conditions.

### 10.5. Incompatible materials

Nitrocellulose is incompatible with strong acids, strong alkalis, amines and oxidizing agents.

#### 10.6. Hazardous decomposition products

CO, CO2, oxides of nitrogen and other potentially toxic fumes.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Isopropanol (67-63-0)	
LD50 oral rat	5840 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Experimental value)
LD50 dermal rabbit	16400 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value)
LC50 Inhalation - Rat [ppm]	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male/female, Experimental value)
ATE US (oral)	5840 mg/kg bodyweight
ATE US (dermal)	16400000 mg/kg bodyweight
Nitrocellulose (9004-70-0)	

LD50 oral rat > 5000 mg/kg (Rat		
5 5 7	LD50 oral rat	> 5000 mg/kg (Rat)

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified

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<b>.</b>	A1 4 1 10 1
Carcinogenicity	: Not classified

Isopropanol (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness.

: Not classified

Isopropanol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure Aspiration hazard : Not classified Viscosity, kinematic : No data available

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after eye contact : Eye irritation.

# **SECTION 12: Ecological information**

#### **Toxicity**

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Isopropanol (67-63-0)	
LC50 fish 1	9640 – 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flowthrough system, Fresh water, Experimental value)
LC50 fish 2	9640 mg/l Test organisms (species): Pimephales promelas

#### 12.2. Persistence and degradability

Isopropanol (67-63-0)		
Persistence and degradability  Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.		
Biochemical oxygen demand (BOD)	1.19 g O₂/g substance	
Chemical oxygen demand (COD)2.23 g O₂/g substanceThOD2.4 g O₂/g substance		
		Nitrocellulose (9004-70-0)
Persistence and degradability Biodegradability: approx 20% after 28 days OECD 301B		

#### 12.3. **Bioaccumulative potential**

NQ Cotton Isopropanol Wetted		
Partition coefficient n-octanol/water (Log Pow)	0.05	
Isopropanol (67-63-0)		
Partition coefficient n-octanol/water (Log Pow)	0.05 (Weight of evidence approach, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Nitrocellulose (9004-70-0)		
Bioaccumulative potential	Not lipophile, no bioaccumulation potential	

#### 12.4. Mobility in soil

Isopropanol (67-63-0)	
Surface tension	0.021 N/m (25 °C)
Ecology - soil	No (test)data on mobility of the substance available.

#### Other adverse effects

No additional information available

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## SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

# **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN2556 Nitrocellulose with alcohol, 4.1, II

UN-No.(DOT) : UN2556

Proper Shipping Name (DOT) : Nitrocellulose with alcohol

Class (DOT) : 4.1 - Class 4.1 - Flammable Solid 49 CFR 173.124

Packing group (DOT) : II - Medium Danger Hazard labels (DOT) : 4.1 - Flammable solid



DOT Packaging Non Bulk (49 CFR 173.xxx) : 212

DOT Packaging Bulk (49 CFR 173.xxx) : None

DOT Packaging Exceptions (49 CFR 173.xxx) : 151

DOT Quantity Limitations Passenger aircraft/rail : 1 kg

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 15 kg

CFR 175.75)

DOT Vessel Stowage Location : D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel

carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger

vessels in which the limiting number of passengers is exceeded.

DOT Vessel Stowage Other : 28 - Stow "away from" flammable liquids,36 - Stow "away from" heavy metals and their

compounds

Emergency Response Guide (ERG) Number : 113

Other information : No supplementary information available.

Transport by sea

Transport document description (IMDG) : UN 2556 NITROCELLULOSE WITH ALCOHOL, 4.1, II

UN-No. (IMDG) : 2556

Proper Shipping Name (IMDG) : NITROCELLULOSE WITH ALCOHOL

Class (IMDG) : 4.1 - Flammable solids, self-reactive substances and solid desensitized explosives

Packing group (IMDG) : II - substances presenting medium danger

Air transport

Transport document description (IATA) : UN 2556 Nitrocellulose with alcohol, 4.1, II

UN-No. (IATA) : 2556

Proper Shipping Name (IATA) : Nitrocellulose with alcohol Class (IATA) : 4.1 - Flammable solids Packing group (IATA) : II - Medium Danger

# **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

NQ Cotton Isopropanol Wetted		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).	

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Isopropanol (67-63-0)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
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Nitrocellulose (9004-70-0)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting	

#### 15.2. International regulations

#### CANADA

Isopropanol (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)

Nitrocellulose (9004-70-0)

Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations** 

No additional information available

**National regulations** 

No additional information available

15.3. US State regulations

No additional information available

## **SECTION 16: Other information**

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SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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