



## NS21

Version 1.0

MSDS Number: H51822

Revision Date: 13.05.2015

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

#### 1.1 Product identifier

Trade name : NS21

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

Use of the Sub-  
stance/Mixture : Additive, Paint

Recommended restrictions  
on use : For use in industrial installations or professional treatment  
only.

#### 1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.  
Ctra. Nacional II, Km. 706,5  
17457 Riudellots de la Selva  
Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person  
responsible for the SDS : msds@roberlo.com

#### 1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Skin corrosion, Category 1C H314: Causes severe skin burns and eye damage.

Specific target organ toxicity - single ex-  
posure, Category 3, Central nervous  
system H336: May cause drowsiness or dizziness.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

##### Classification (67/548/EEC, 1999/45/EC)

Flammable R10: Flammable.

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Corrosive	R34: Causes burns.
Sensitising	R43: May cause sensitisation by skin contact.
	R67: Vapours may cause drowsiness and dizziness.

**2.2 Label elements**

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.  
 H314 Causes severe skin burns and eye damage.  
 H336 May cause drowsiness or dizziness.  
 H317 May cause an allergic skin reaction.

Precautionary statements : **Prevention:**  
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P284 In case of inadequate ventilation wear respiratory protection.  
 P260 Do not breathe vapours.  
 P260 Do not breathe spray.

**Response:**  
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**  
 P403 Store in a well-ventilated place.

**Disposal:**  
 P501 Dispose of contents/ container to an ap-



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proved waste disposal plant.

Hazardous components which must be listed on the label:

Isophorone diamine isobutyraldimine

n-butyl acetate

**2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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

**3.2 Mixtures**

Chemical nature : Paint

**Hazardous components**

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Isophorone diamine isobutyraldimine	54914-37-3 259-393-4 01- 2119978283-28	C; R34 R43	Skin Corr.1C; H314 Skin Sens.1A; H317	>= 20 - < 30
n-butyl acetate	123-86-4 204-658-1 01- 2119485493-29	R10 R66 R67	Flam. Liq.3; H226 STOT SE3; H336	>= 20 - < 30
butylglycol acetate	112-07-2 203-933-3 01- 2119475112-47	Xn; R20/21	Acute Tox.4; H332 Acute Tox.4; H312	>= 1 - < 10
Substances with a workplace exposure limit :				
2-methoxy-1- methylethyl acetate	108-65-6 203-603-9 01- 2119475791-29	R10	Flam. Liq.3; H226	>= 30 - < 50

For explanation of abbreviations see section 16.



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**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.
  
- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
  
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
  
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.
  
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do NOT induce vomiting.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Take victim immediately to hospital.

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

None known.

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

Treatment : No information available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

- Suitable extinguishing media : Alcohol-resistant foam  
Dry chemical
  
- Unsuitable extinguishing media : High volume water jet



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### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.
- Hazardous combustion products : No hazardous combustion products are known

### 5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : For safety reasons in case of fire, cans should be stored separately in closed containments.

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## SECTION 6: Accidental release measures

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

- Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.

### 6.2 Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system.

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

- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Advice on safe handling : For personal protection see section 8.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
To avoid spills during handling keep bottle on a metal tray.



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Advice on protection against fire and explosion : Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of work-day.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : No smoking. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage period : 12 Months

Other data : No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

Specific use(s) : For the use of this product do not exist particular recommendations apart from that already indicated.

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

**8.1 Control parameters**

**Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
2-methoxy-1-methylethyl acetate	108-65-6	STEL	100 ppm 550 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
2-methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 274 mg/m3	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
2-methoxy-1-methylethyl acetate	108-65-6	STEL	100 ppm 548 mg/m3	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40
n-butyl acetate	123-86-4	STEL	200 ppm	GB EH40



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			966 mg/m3	
butylglycol acetate	112-07-2	TWA	20 ppm 133 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
butylglycol acetate	112-07-2	STEL	50 ppm 333 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
butylglycol acetate	112-07-2	TWA	20 ppm	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
butylglycol acetate	112-07-2	STEL	50 ppm	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

- n-butyl acetate : End Use: Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long-term systemic effects  
 Value: 480 mg/m3
- 2-butoxyethyl acetate : End Use: Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long-term systemic effects  
 Value: 133 mg/m3
- 2-methoxy-1-methylethyl acetate : End Use: Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long-term systemic effects  
 Value: 275 mg/m3

**8.2 Exposure controls**

**Personal protective equipment**

- Eye protection : Eye wash bottle with pure water  
 Tightly fitting safety goggles  
 Wear face-shield and protective suit for abnormal processing problems.
- Hand protection
- Remarks : Solvent-resistant gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.
- Skin and body protection : impervious clothing  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.



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### SECTION 9: Physical and chemical properties

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

Appearance	: liquid
Colour	: colourless
Odour	: characteristic
Melting point/range	: Not applicable
Boiling point/boiling range	: 126.3 °C (7.6 hPa)
Flash point	: 39 °C Method: ISO 1523, closed cup Setaflash
Upper explosion limit	: not determined
Lower explosion limit	: not determined
Vapour pressure	: 4.2 hPa (20 °C)  30 hPa (50 °C)
Density	: 0.92 g/cm <sup>3</sup> (20 °C) Method: ISO 2811-1
Solubility(ies) Water solubility	: immiscible
Viscosity Viscosity, dynamic	: 18 mPa.s (20 °C) Method: ISO 2555

#### 9.2 Other information

No data available

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Stable under recommended storage conditions.





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### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if used as directed.  
Vapours may form explosive mixture with air.

### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents  
Strong acids and strong bases

### 10.6 Hazardous decomposition products

Hazardous decomposition products : Nitrogen oxides (NOx)

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Product:

Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg  
Method: Calculation method

##### Components:

##### **Isophorone diamine isobutyraldimine:**

Acute oral toxicity : LD50 Oral (Rat): 4,150 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 12.76 mg/l  
Exposure time: 4 h  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Method: OECD Test Guideline 402

##### **n-butyl acetate:**

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg



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	Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): 23.4 mg/l Exposure time: 4 h Method: OECD Test Guideline 403
Acute dermal toxicity	: LD50 (Rabbit): 17,600 mg/kg Method: OECD Test Guideline 402
<b>butylglycol acetate:</b>	
Acute oral toxicity	: LD50 Oral (Rat): 1,880 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): 20 mg/l Exposure time: 4 h Method: OECD Test Guideline 403
Acute dermal toxicity	: Acute toxicity estimate : 1,100 mg/kg Method: Converted acute toxicity point estimate
<b>2-methoxy-1-methylethyl acetate:</b>	
Acute oral toxicity	: LD50 Oral (Rat): 8,532 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): 35.7 mg/l Exposure time: 4 h Method: OECD Test Guideline 403
Acute dermal toxicity	: LD50 (Rat): 5,000 mg/kg Method: OECD Test Guideline 402

### Skin corrosion/irritation

**Product:**

Remarks: Extremely corrosive and destructive to tissue.

### Serious eye damage/eye irritation

**Product:**

Remarks: May cause irreversible eye damage.

### Respiratory or skin sensitisation

**Product:**

Result: May cause sensitisation by skin contact.

### Germ cell mutagenicity

**Product:**

Germ cell mutagenicity- Assessment : Based on available data, the classification criteria are not met.



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### Carcinogenicity

**Product:**

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

### Reproductive toxicity

**Product:**

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

### STOT - single exposure

**Product:**

Target Organs: Central nervous system  
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

### STOT - repeated exposure

**Product:**

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

### Aspiration toxicity

**Product:**

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

### Further information

**Product:**

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

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## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**Isophorone diamine isobutyraldimine:**

Toxicity to fish : LC50 (Fish): 960 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203



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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 23 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 83 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

### **n-butyl acetate:**

Toxicity to fish : LC50 (Fish): 18 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 32 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

### **butylglycol acetate:**

Toxicity to fish : LC50 (Fish): 28 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 37 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,570 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

### **2-methoxy-1-methylethyl acetate:**

Toxicity to fish : LC50 (Fish): 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 408 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,000 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

## **12.2 Persistence and degradability**

No data available

## **12.3 Bioaccumulative potential**

No data available



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### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

**Product:**

Additional ecological information : There is no data available for this product.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

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## SECTION 14: Transport information

### 14.1 UN number

ADR : UN 1263  
IMDG : UN 1263  
IATA : UN 1263

### 14.2 UN proper shipping name

ADR : PAINT RELATED MATERIAL  
IMDG : PAINT RELATED MATERIAL  
IATA : Paint related material

### 14.3 Transport hazard class(es)

ADR : 3



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**IMDG** : 3

**IATA** : 3

### 14.4 Packing group

#### ADR

Packing group : III

Classification Code : F1

Hazard Identification Number : 33

Labels : 3

#### IMDG

Packing group : III

Labels : 3

EmS Code : F-E, S-E

#### IATA

Packing instruction (cargo aircraft) : 366

Packing instruction (LQ) : Y344

Packing group : III

Labels : Flammable Liquids

### 14.5 Environmental hazards

#### ADR

Environmentally hazardous : no

#### IMDG

Marine pollutant : no

### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5,000 t	50,000 t

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

### 15.2 Chemical Safety Assessment

Not applicable



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### SECTION 16: Other information

#### Full text of R-Phrases

R10	Flammable.
R20/21	Harmful by inhalation and in contact with skin.
R34	Causes burns.
R43	May cause sensitisation by skin contact.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

#### Full text of H-Statements

H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

#### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.