



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

1.1. Product identifier

Name: 2-NONANONE
Code: 100818
Chemical characterization: Nonan-2-one
Botanical characterization: NA
CAS number: 821-55-6
EC number: 212-480-0
FEMA : 2785
CoE : 154

Registration number for this substance is not available, since the substance or its use are exempted; according to REACH (CE) n ° 1907/2006 Article 2 or according to Article 15, the annual tonnage does not require registration, this registration will be evaluate later on.

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

Recommended use:

Flavouring substances and mixtures for professional use.

1

Uses advised against:

Product not intended for direct consumer use. Not for pharmaceutical or medical purpose.

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1.3. Details of the supplier of the safety data sheet

Company: MOELLHAUSEN S.p.A.
Via Torri Bianche, 9 - 20059 Vimercate (MI), Italy
Tel. +39 039.685.6262 - Fax +39 039.685.6263

Competent person responsible for the safety data sheet: regulatory@moellhausen.com

1.4. Emergency telephone number

Poison center - Niguarda Hospital - Milan - Tel. +39 02.661.010.29
Poison center - Bambino Gesù Pediatric Hospital, Emergency Department and DEA acceptance, piazza Sant'Onofrio 4, Rome - Tel. +39 06.6859.3726
Poison Center - Foggia University Hospital "Ospedali Riuniti", viale Luigi Pinto 1, Foggia - Tel. 800.183.459
Poison Center - A. Cardarelli Hospital - via Antonio Cardarelli 9, Naples - Tel. +39 081.545.3333
Poison Center - Umberto I Polyclinic, viale del Policlinico 155, Rome - Tel. +39 06.4997.8000
Poison Center - A. Gemelli Polyclinic, largo Agostino Gemelli 8, Rome - Tel. +39 06.305.4343
Poison Center - Careggi U.O. Hospital Medical Toxicology, via Largo Brambilla 3, Florence - Tel. +39 055.794.7819
Poison Center - National Toxicological Information Centervia Salvatore Maugeri 10, Pavia - Tel. +39 0382.24.444
Poison Center - Papa Giovanni XXIII Hospital, piazza OMS 1, Bergamo - Tel. 800.88.33.00
Poison Center - Integrated University Hospital (AOUI) Verona Borgo Trento, piazzale Aristide Stefani, 1 Verona - Tel. 800.011.858

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

- ⚠ Warning, Skin Irrit. 2, Causes skin irritation.
- ⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements
Hazard pictograms:



Warning

Hazard statements:

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

Precautionary statements:

- P264 Wash ... Thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362+P364 Take off contaminated clothing and wash it before reuse.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

This substance has no PBT, vPvB or endocrine disrupting properties

SECTION 3: Composition/information on ingredients

3.1. Substances

Identification of the substance:
see section 1.1

3.2. Mixtures

Not Applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Wash immediately with water for at least 10 minutes.
Protect uninjured eye.

In case of Ingestion:

A suspension of activated charcoal in water, or liquid paraffin may be administered.
Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION.

- 4.2. Most important symptoms and effects, both acute and delayed
None
- 4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
Suitable extinguishing media:
Water.
Carbon dioxide (CO₂).
Extinguishing media which must not be used for safety reasons:
None in particular.
- 5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
- 5.3. Advice for firefighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
For non emergency personnel:
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.
For emergency responders:
Wear personal protection equipment.
- 6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
Wash with plenty of water.
- 6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
- 7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

Not available

PNEC Exposure Limit Values

Not available

8.2. Exposure controls

The appropriate DPI choice is complete responsibility of the Employer, material safety data sheet gives only useful indications.

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	LIQUID	--	--
Colour:	COLOURLES S-PALE YELLOW	--	--
Odour:	CHARACTER ISTIC	--	--
Specific gravity at 20°C:	0.820-0.826 g/(cm ³)	--	--
Refractive index at 20 °C :	1.421-1.424	--	--
Melting point/freezing point:	Not available	--	--
Boiling point or initial boiling point and boiling	Not available	--	--

range:			
Flammability:	Not available	--	--
Lower and upper explosion limit:	Not available	--	--
Flash point:	68.0 °C	--	--
Decomposition temperature:	Not available	--	--
pH:	Not available	--	--
Kinematic viscosity:	Not available	--	--
Solubility :	H2O: INSOLUBLE ORGANIC SOLV.: SOLUBLE	--	--
Auto-ignition temperature:	Not available	--	--
Partition coefficient n-octanol/water (log value):	Not available	--	--
Vapour pressure:	Not available	--	--
Relative vapour density:	Not available	--	--
Particle characteristics:			
Particle size:	Not available	--	--

9.2. Other information
No other relevant information

SECTION 10: Stability and reactivity

- 10.1. Reactivity
Stable under normal conditions
- 10.2. Chemical stability
Stable under normal conditions
- 10.3. Possibility of hazardous reactions
None
- 10.4. Conditions to avoid
Stable under normal conditions.
- 10.5. Incompatible materials
None in particular.
- 10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Toxicological information of the substance:
2-NONANONE - CAS: 821-55-6
a) acute toxicity

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- Not classified
Based on available data, the classification criteria are not met
- b) skin corrosion/irritation
The product is classified: Skin Irrit. 2 H315
- c) serious eye damage/irritation
The product is classified: Eye Irrit. 2 H319
- d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
- e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
- f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
- g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
- h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
- i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
- j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met
- 2-NONANONE - CAS: 821-55-6
Dermal, rodent-rabbit: LD50 >5mg/kg
Draize test, rabbit and rodent, skin: 500mg/24H Moderate
Oral, rat: LD50 = 3000 mg/kg
Dermal, guinea pigs: LD50 = 0.05-0.24

- 11.2. Information on other hazards
Endocrine disrupting properties:
This substance has no endocrine disrupting properties

SECTION 12: Ecological information

- 12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
- 2-NONANONE - CAS: 821-55-6
Not classified for environmental hazards
Based on available data, the classification criteria are not met
- 12.2. Persistence and degradability
Not available
- 12.3. Bioaccumulative potential
Not available
- 12.4. Mobility in soil
Not available
- 12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
- 12.6. Endocrine disrupting properties
No endocrine disruptor substances present in concentration $\geq 0.1\%$
- 12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

Not available

14.3. Transport hazard class(es)

Not available

14.4. Packing group

Not available

14.5. Environmental hazards

ADR-Environmental Pollutant: No

14.6. Special precautions for user

Not available

14.7. Maritime transport in bulk according to IMO instruments

Not available

The product is transported in conditions that comply with exemption criteria for ADR transport.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Not available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the substance.

SECTION 16: Other information

Hazard class and hazard category	Code	Description
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2

This safety data sheet has been completely updated in compliance to Regulation 2020/878.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

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This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

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Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"
(ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
PNEC: Predicted No Effect Concentration.
RID: Regulation Concerning the International Transport of Dangerous Goods
by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average
WGK: German Water Hazard Class.