

Safety Data Sheet acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

1 Identification

- **Product identifier**
 - **Trade name:** Unbinder
 - **Article number:** 0144281
 - **CAS Number:**
872-50-4
 - **EC number:**
212-828-1
 - **Index number:**
606-021-00-7
 - **Application of the substance / the mixture** *Cleaning agent/ Cleaner*
 - **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Trassig Corp.
65 Redding Rd. #874
Georgetown CT 06829
203-659-0456
www.trassig.com
info@trassig.com
 - **Information department:** *Product Development Department*
 - **Emergency telephone number:**
*For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night.*
- Within USA and Canada: (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887 (Collect Calls Not Accepted)*

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Repr. 1B H360 May damage fertility or the unborn child.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Flam. Liq. 4 H227 Combustible liquid.

- **Label elements**

- **GHS label elements** *The substance is classified and labeled according to the Globally Harmonized System (GHS).*

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 1)

Hazard pictograms



GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

N-methyl-2-pyrrolidone

Hazard statements

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May damage fertility or the unborn child.

May cause respiratory irritation.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. – No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

If on skin: Wash with plenty of water.

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.

IF exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO₂ gas).

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 2

Fire = 2

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *2

Fire = 2

Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

872-50-4 N-methyl-2-pyrrolidone

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 2)

- **Identification number(s)**
- **EC number:** 212-828-1
- **Index number:** 606-021-00-7

4 First-aid measures

- **Description of first aid measures**

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

If inhaled, remove victim from the immediate area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Induce vomiting, only if affected person is fully conscious.

Immediately call a doctor.

- **Information for doctor:**

Most important symptoms and effects, both acute and delayed No further relevant information available.

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

No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**

· **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

· **Special hazards arising from the substance or mixture** During heating or in case of fire, nitrous gases are produced

- **Advice for firefighters**

- **Protective equipment:**

Wear breathing apparatus

Wear full protective suit with self-contained breathing apparatus

See section 8

· **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective clothing.

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:** Do not allow product to reach sewage system or bodies of water.

- **Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

PAC-1:	
	30 ppm

PAC-2:	
	32 ppm

PAC-3:	
	190 ppm

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 3)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaust at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Pay attention to the general rules of internal fire prevention.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Recommended ideal storage temperature range: 59 - 77 degrees F. Product should not be stored above 110 degrees F.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
This product is combustible.
Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

Components with limit values that require monitoring at the workplace:

872-50-4 N-methyl-2-pyrrolidone

TLV	BEI
WEEL	Long-term value: 10 ppm Skin

Ingredients with biological limit values:

872-50-4 N-methyl-2-pyrrolidone

BEI	100 mg/L Medium: urine Time: end of shift Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone
-----	--

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Gases fumes and aerosols should not be inhaled.
- **Breathing equipment:**
In case of inadequate ventilation or high vapor concentration, wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator as needed. Observe OSHA regulations for respirator use (29 CFR 1910.134).
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
The following glove types are recommended: neoprene, nitrile rubber, PVC or butyl rubber. Thin, disposable latex gloves should be avoided for repeated or long term handling of the material. Recommended thickness of the glove material: 5 - 6 mil
Selection of the glove material should be based on the consideration of penetration times, rates of diffusion and the degradation

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 4)

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

Body protection: Protective work clothing

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	According to product specification
Odor:	Amine-like
Odor threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	-24 °C (-75.2 °F)
Boiling point/Boiling range:	202 °C (395.6 °F)

Flash point: 93 °C (199.4 °F)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 270 °C (518 °F)

Decomposition temperature: Not determined.

Auto igniting: Not determined.

Danger of explosion: Not determined.

Explosion limits:

Lower:	1.3 Vol %
Upper:	9.5 Vol %

Vapor pressure at 20 °C (68 °F): 0.3 hPa (0.2 mm Hg)

Density at 20 °C (68 °F): 1.04 g/cm³ (8.6788 lbs/gal)

Relative density: Not determined.

Vapor density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic at 20 °C (68 °F):	1.65 mPas
Kinematic:	Not determined.
Organic solvents:	100.0 %
VOC content:	100.00 %
	1,040.0 g/l / 8.68 lb/gal

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 5)

Solids content:	0.0 %
Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Strong acids, alkalis, metals and oxidizing agents.
- **Hazardous decomposition products:**
 - Nitrogen oxides
 - Carbon monoxide
 - Carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
872-50-4 N-methyl-2-pyrrolidone		
Oral	LD50	3,914 mg/kg (rat)
Dermal	LD50	8,000 mg/kg (rabbit)

- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)	
Substance is not listed.	
· NTP (National Toxicology Program)	
Substance is not listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
Substance is not listed.	

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Assessment by list): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Product should be disposed of in accordance with local regulations.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 6)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	Void
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	Void
· DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	Void
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	Void
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	Void

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· Section 355 (extremely hazardous substances):
--

Substance is not listed.

· Section 313 (Specific toxic chemical listings):
--

Substance is listed.

· TSCA (Toxic Substances Control Act):

	ACTIVE
--	--------

· Hazardous Air Pollutants

Substance is not listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:
--

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:
--

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)
--

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 7)

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

N-methyl-2-pyrrolidone

· **Hazard statements**

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May damage fertility or the unborn child.

May cause respiratory irritation.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. – No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

If on skin: Wash with plenty of water.

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.

IF exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO₂ gas).

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product Development Department

· **Contact:** Product Development Department

· **Date of preparation / last revision** 03/20/2020 / -

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Date of PDF Creation 03/20/2020

Reviewed on 03/20/2020

Trade name: Unbinder

(Contd. of page 8)

NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 4: Flammable liquids – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3