

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

1.1. Product identifier

Trade name or designation of the mixture	Action Marker - all colors
Registration number	-
Synonyms	Formula Code: J3062 (Black), A735M (Red) * Synonyms: AM33-Fine, and 44-Medium
Part Number	33003, 44003 (Black), 44002 (Red)
Issue date	20-November-2017
Version number	01

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

Identified uses Solvent based marker

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name	ITW Pro Brands
Address	805 E. Old 56 Highway Olathe, KS 66061
Country	(U.S.A.) Tel: +1 800-443-9536
In Case of Emergency	1-800-535-5053 (Infotrac)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification R10, Xi;R37-41, R67

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Flammable liquids	Category 3	H226 - Flammable liquid and vapour.
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Health hazards

Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Reproductive toxicity (the unborn child)	Category 1B	H360D - May damage the unborn child.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.

Hazard summary

Physical hazards	Flammable.
Health hazards	May cause harm to the unborn child. Irritating to respiratory system. Risk of serious damage to eyes. Vapours may cause drowsiness and dizziness. Occupational exposure to the substance or mixture may cause adverse health effects.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	None known.
Main symptoms	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhoea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended**Contains:** 1-Methyl-2-Pyrrolidinone, 1-Propanol, Diacetone alcohol, Propylene Glycol Methyl Ether**Hazard pictograms****Signal word** Danger**Hazard statements**

H226 Flammable liquid and vapour.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H360D May damage the unborn child.

Precautionary statements**Prevention**

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical/ventilating/lighting equipment.
 P242 Use non-sparking tools.
 P243 Take action to prevent static discharges.
 P260 Do not breathe vapour.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTRE/doctor.
 P370 + P378 In case of fire: Use appropriate media to extinguish.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P403 + P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.**2.3. Other hazards** None known.**SECTION 3: Composition/information on ingredients****3.2. Mixtures****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
1-Propanol	60 - 100	71-23-8 200-746-9	-	603-003-00-0	
Classification:		DSD: F;R11, Xi;R41, R67 CLP: Flam. Liq. 2;H225, Acute Tox. 4;H302, Eye Dam. 1;H318, STOT SE 3;H336			
Diacetone alcohol	20 - 30	123-42-2 204-626-7	-	603-016-00-1	
Classification:		DSD: Xi;R36 CLP: Flam. Liq. 1;H224, Eye Irrit. 2;H319, STOT SE 3;H335			
Propylene Glycol Methyl Ether	20 - 30	107-98-2 203-539-1	-	603-064-00-3	#
Classification:		DSD: R10, R67 CLP: Flam. Liq. 3;H226, STOT SE 3;H336			

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
1-Methyl-2-Pyrrolidinone	1 - < 3	872-50-4 212-828-1	-	606-021-00-7	#
Classification:	DSD: Repr. Cat. 2;R61, Xi;R36/37/38 CLP: Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335				

List of abbreviations and symbols that may be used above

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhoea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards Flammable liquid and vapour.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.

- 6.2. Environmental precautions** Avoid discharge into drains, water courses or onto the ground.
- 6.3. Methods and material for containment and cleaning up** Use water spray to reduce vapours or divert vapour cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.
- Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
- Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
- Never return spills to original containers for re-use. For waste disposal, see section 13.
- 6.4. Reference to other sections** For personal protection, see section 8 of the SDS. For waste disposal, see section 13.

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Do not breathe vapour. Do not get this material in contact with eyes. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
- 7.2. Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).
- 7.3. Specific end use(s)** Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value	Form
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	MAK	40 mg/m ³	Vapour.
	STEL	10 ppm 80 mg/m ³	Vapour. Vapour.
1-Propanol (CAS 71-23-8)	MAK	20 ppm 500 mg/m ³	Vapour.
		200 ppm	
Diacetone alcohol (CAS 123-42-2)	MAK	240 mg/m ³	
		50 ppm	
Propylene Glycol Methyl Ether (CAS 107-98-2)	Ceiling	187 mg/m ³	
	MAK	50 ppm 187 mg/m ³ 50 ppm	

Belgium. Exposure Limit Values.

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
1-Propanol (CAS 71-23-8)	TWA	40 mg/m ³ 10 ppm
		250 mg/m ³
Diacetone alcohol (CAS 123-42-2)	TWA	100 ppm 241 mg/m ³
		50 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m ³
	TWA	150 ppm 375 mg/m ³

Belgium. Exposure Limit Values.

Components	Type	Value
		100 ppm

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
	TWA	40 mg/m ³ 10 ppm
1-Propanol (CAS 71-23-8)	STEL	500 mg/m ³
	TWA	300 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m ³
		150 ppm
	TWA	375 mg/m ³ 100 ppm

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	MAC	40 mg/m ³
		10 ppm
	STEL	80 mg/m ³ 20 ppm
1-Propanol (CAS 71-23-8)	MAC	500 mg/m ³ 200 ppm
		625 mg/m ³ 250 ppm
	STEL	241 mg/m ³
Diacetone alcohol (CAS 123-42-2)	MAC	50 ppm
		362 mg/m ³ 75 ppm
	STEL	375 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	MAC	100 ppm
		568 mg/m ³ 150 ppm
	STEL	

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value
1-Propanol (CAS 71-23-8)	TWA	500 mg/m ³ 200 ppm

Czech Republic. OELs. Government Decree 361

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	Ceiling	80 mg/m ³
	TWA	40 mg/m ³
1-Propanol (CAS 71-23-8)	Ceiling	1000 mg/m ³
	TWA	500 mg/m ³
Diacetone alcohol (CAS 123-42-2)	Ceiling	300 mg/m ³
	TWA	200 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	Ceiling	550 mg/m ³
	TWA	270 mg/m ³

Denmark. Exposure Limit Values

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	TLV	20 mg/m ³
		5 ppm
1-Propanol (CAS 71-23-8)	TLV	500 mg/m ³ 200 ppm

Denmark. Exposure Limit Values

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TLV	240 mg/m ³
		50 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	TLV	185 mg/m ³
		50 ppm

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
	TWA	40 mg/m ³ 10 ppm
1-Propanol (CAS 71-23-8)	STEL	600 mg/m ³ 250 ppm
	TWA	350 mg/m ³ 150 ppm
		240 mg/m ³
Diacetone alcohol (CAS 123-42-2)	STEL	240 mg/m ³
		50 ppm
	TWA	120 mg/m ³ 25 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m ³
		150 ppm
	TWA	375 mg/m ³ 100 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
	TWA	40 mg/m ³ 10 ppm
1-Propanol (CAS 71-23-8)	STEL	620 mg/m ³ 250 ppm
	TWA	500 mg/m ³ 200 ppm
		360 mg/m ³
Diacetone alcohol (CAS 123-42-2)	STEL	360 mg/m ³
		75 ppm
	TWA	240 mg/m ³ 50 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	560 mg/m ³
		150 ppm
	TWA	370 mg/m ³ 100 ppm

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	VLE	80 mg/m ³
		20 ppm
	VME	40 mg/m ³ 10 ppm
1-Propanol (CAS 71-23-8)	VME	500 mg/m ³ 200 ppm
		240 mg/m ³
Diacetone alcohol (CAS 123-42-2)	VME	240 mg/m ³
		50 ppm

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
Propylene Glycol Methyl Ether (CAS 107-98-2)	VLE	375 mg/m ³
	VME	100 ppm 188 mg/m ³ 50 ppm

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	TWA	82 mg/m ³	Vapour and aerosol.
		20 ppm	Vapour and aerosol.
Diacetone alcohol (CAS 123-42-2)	TWA	96 mg/m ³	
		20 ppm	
Propylene Glycol Methyl Ether (CAS 107-98-2)	TWA	370 mg/m ³	
		100 ppm	

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value	Form
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	AGW	82 mg/m ³	Vapour.
		20 ppm	Vapour.
Diacetone alcohol (CAS 123-42-2)	AGW	96 mg/m ³	
		20 ppm	
Propylene Glycol Methyl Ether (CAS 107-98-2)	AGW	370 mg/m ³	
		100 ppm	

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
1-Propanol (CAS 71-23-8)	TWA	40 mg/m ³
		10 ppm
	STEL	625 mg/m ³
		250 ppm
Diacetone alcohol (CAS 123-42-2)	TWA	500 mg/m ³
		200 ppm
	STEL	360 mg/m ³
		75 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	TWA	240 mg/m ³
		50 ppm
	STEL	1080 mg/m ³
		300 ppm
	TWA	360 mg/m ³
		100 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
	TWA	40 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m ³
	TWA	375 mg/m ³

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value
1-Propanol (CAS 71-23-8)	TWA	20 ppm 40 mg/m3
	TWA	10 ppm 500 mg/m3
Diacetone alcohol (CAS 123-42-2)	TWA	200 ppm 240 mg/m3
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	50 ppm 568 mg/m3
	TWA	150 ppm 185 mg/m3 50 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3
1-Propanol (CAS 71-23-8)	TWA	20 ppm 40 mg/m3
	TWA	10 ppm 100 ppm
Diacetone alcohol (CAS 123-42-2)	TWA	240 mg/m3
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	50 ppm 568 mg/m3
	TWA	150 ppm 375 mg/m3 100 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3
1-Propanol (CAS 71-23-8)	TWA	20 ppm 40 mg/m3
	TWA	10 ppm 100 ppm
Diacetone alcohol (CAS 123-42-2)	TWA	50 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m3
	TWA	150 ppm 375 mg/m3 100 ppm

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3
1-Propanol (CAS 71-23-8)	TWA	20 ppm 40 mg/m3
	TWA	10 ppm 10 mg/m3
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m3
	TWA	150 ppm 375 mg/m3 100 ppm

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
1-Propanol (CAS 71-23-8)	TWA	20 ppm
		40 mg/m ³
	STEL	10 ppm
		600 mg/m ³
Diacetone alcohol (CAS 123-42-2)	TWA	250 ppm
		350 mg/m ³
	STEL	150 ppm
		240 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	TWA	50 ppm
		120 mg/m ³
	STEL	25 ppm
		300 mg/m ³
TWA	75 ppm	
	190 mg/m ³	
	50 ppm	

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
	TWA	40 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	10 ppm
		568 mg/m ³
	TWA	150 ppm
		375 mg/m ³
TWA	100 ppm	

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
	TWA	40 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	10 ppm
		568 mg/m ³
	TWA	150 ppm
		375 mg/m ³
TWA	100 ppm	

Netherlands. OELs (binding)

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		40 mg/m ³
	TWA	563 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	TWA	375 mg/m ³

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
	TLV	20 mg/m ³
1-Propanol (CAS 71-23-8)	TLV	5 ppm
		245 mg/m ³
	TLV	100 ppm
Diacetone alcohol (CAS 123-42-2)	TLV	120 mg/m ³

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
Propylene Glycol Methyl Ether (CAS 107-98-2)	TLV	25 ppm
		180 mg/m ³
		50 ppm

Poland. MACs. Regulation regarding maximum permissible concentrations and intensities of harmful factors in the work environment, Annex 1

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
1-Propanol (CAS 71-23-8)	TWA	40 mg/m ³
	STEL	600 mg/m ³
	TWA	200 mg/m ³
Diacetone alcohol (CAS 123-42-2)	TWA	240 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	360 mg/m ³
	TWA	180 mg/m ³

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³
		20 ppm
		40 mg/m ³
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	10 ppm
		568 mg/m ³
		150 ppm
TWA	375 mg/m ³	
	100 ppm	

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	
1-Propanol (CAS 71-23-8)	STEL	400 ppm	
		TWA	200 ppm
		TWA	50 ppm
Diacetone alcohol (CAS 123-42-2)	TWA	50 ppm	
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	150 ppm	
		TWA	100 ppm

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m ³	
		20 ppm	
		40 mg/m ³	
1-Propanol (CAS 71-23-8)	STEL	10 ppm	
		500 mg/m ³	
		203 ppm	
TWA	200 mg/m ³		
	81 ppm		
	250 mg/m ³		
Diacetone alcohol (CAS 123-42-2)	STEL	53 ppm	
		TWA	150 mg/m ³
		32 ppm	
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m ³	
		150 ppm	
		TWA	375 mg/m ³
TWA	100 ppm		

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3
		20 ppm
	TWA	40 mg/m3 10 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3 100 ppm

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value	Form
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	TWA	40 mg/m3	Vapour.
		10 ppm	Vapour.
Diacetone alcohol (CAS 123-42-2)	TWA	240 mg/m3	
		50 ppm	
Propylene Glycol Methyl Ether (CAS 107-98-2)	TWA	375 mg/m3	
		100 ppm	

Spain. Occupational Exposure Limits

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3
		20 ppm
	TWA	40 mg/m3 10 ppm
1-Propanol (CAS 71-23-8)	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3 200 ppm
Diacetone alcohol (CAS 123-42-2)	TWA	241 mg/m3
		50 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m3
		150 ppm
	TWA	375 mg/m3 100 ppm

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	Ceiling	80 mg/m3
		20 ppm
	TWA	40 mg/m3 10 ppm
1-Propanol (CAS 71-23-8)	STEL	600 mg/m3
		250 ppm
	TWA	350 mg/m3 150 ppm
Diacetone alcohol (CAS 123-42-2)	STEL	240 mg/m3
		50 ppm
	TWA	120 mg/m3 25 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	Ceiling	568 mg/m3
		150 ppm
	TWA	190 mg/m3 50 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	160 mg/m3
	TWA	40 ppm 80 mg/m3 20 ppm
1-Propanol (CAS 71-23-8)	TWA	500 mg/m3 200 ppm
	STEL	192 mg/m3
Diacetone alcohol (CAS 123-42-2)	TWA	40 ppm 96 mg/m3 20 ppm
	STEL	720 mg/m3
Propylene Glycol Methyl Ether (CAS 107-98-2)	TWA	200 ppm 360 mg/m3 100 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3
	TWA	20 ppm 40 mg/m3 10 ppm
1-Propanol (CAS 71-23-8)	STEL	625 mg/m3 250 ppm
	TWA	500 mg/m3 200 ppm
Diacetone alcohol (CAS 123-42-2)	STEL	362 mg/m3
	TWA	75 ppm 241 mg/m3 50 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	560 mg/m3
	TWA	150 ppm 375 mg/m3 100 ppm

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	STEL	80 mg/m3
	TWA	20 ppm 40 mg/m3 10 ppm
Propylene Glycol Methyl Ether (CAS 107-98-2)	STEL	568 mg/m3
	TWA	150 ppm 375 mg/m3 100 ppm

Biological limit values**Germany. TRGS 903, BAT List (Biological Limit Values)**

Components	Value	Determinant	Specimen	Sampling time
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	150 mg/l	5-Hydroxy- N-methyl-2-pyrrolidon	Urine	*
Propylene Glycol Methyl Ether (CAS 107-98-2)	15 mg/l	1-Methoxyprop an-2-ol	Urine	*

* - For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

Components	Value	Determinant	Specimen	Sampling time
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)	70 mg/g	5-hidroxi-N-metil-2-pirrolidona	Creatinine in urine	*
	20 mg/g	2-hidroxi-N-metil-succinimida	Creatinine in urine	*

* - For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Components	Value	Determinant	Specimen	Sampling time
Propylene Glycol Methyl Ether (CAS 107-98-2)	20 mg/l	1-METHOXYPROPANOL-2	Urine	*

* - For sampling details, please see the source document.

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines**EU Exposure Limit Values: Skin designation**

1-Methyl-2-Pyrrolidinone (CAS 872-50-4) Can be absorbed through the skin.
 Propylene Glycol Methyl Ether (CAS 107-98-2) Can be absorbed through the skin.

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

1-Methyl-2-Pyrrolidinone (CAS 872-50-4) Can be absorbed through the skin.
 Diacetone alcohol (CAS 123-42-2) Can be absorbed through the skin.
 Propylene Glycol Methyl Ether (CAS 107-98-2) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear suitable protective clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

Physical state Liquid.
Form Liquid.
Colour Black or Red.

Odour Ether-like.

Odour threshold Not available.

pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	120 - 169,44 °C (248 - 336,99 °F)
Flash point	31,7 °C (89,0 °F)
Evaporation rate	< 1 BuAc
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1 %
Flammability limit - upper (%)	7 %
Vapour pressure	Not available.
Vapour density	> 1 (Air = 1)
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Partially soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	
VOC	A735M Red: 86,9%, 725 g/l J3062 Black: 83,95%, 815 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Strong acids. Strong oxidising agents.
10.6. Hazardous decomposition products	Carbon oxides.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
Information on likely routes of exposure	
Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye damage.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhoea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
11.1. Information on toxicological effects	
Acute toxicity	Not expected to be acutely toxic.

Components	Species	Test results
1-Propanol (CAS 71-23-8)		
Acute		
Oral		
LD50	Rat	1870 mg/kg
Diacetone alcohol (CAS 123-42-2)		
Acute		
Dermal		
LD50	Rat	> 1875 mg/kg, 24 Hours
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory sensitisation	Not a respiratory sensitizer.	
Skin sensitisation	This product is not expected to cause skin sensitisation.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
ACGIH Carcinogens		
1-Propanol (CAS 71-23-8)		Not classifiable as a human carcinogen. A4
Propylene Glycol Methyl Ether (CAS 107-98-2)		Not classifiable as a human carcinogen. A4
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)		
Not listed.		
Reproductive toxicity	May damage the unborn child.	
Specific target organ toxicity - single exposure	May cause respiratory irritation. May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Mixture versus substance information	No information available.	
Other information	Symptoms may be delayed.	

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Components	Species	Test results
1-Propanol (CAS 71-23-8)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 3339 - 3977 mg/l, 48 hours
Fish	LC50	Bleak (Alburnus alburnus) 3000 - 4000 mg/l, 96 hours
Diacetone alcohol (CAS 123-42-2)		
Aquatic		
Fish	LC50	Bluegill (Lepomis macrochirus) 420 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

Partition coefficient

n-octanol/water (log Kow)

1-Methyl-2-Pyrrolidinone	-0,54
1-Propanol	0,25
Diacetone alcohol	-0,098

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not available.

12.6. Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Hazard No. (ADR)	30
Tunnel restriction code	D/E
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	No.
ERG Code	3L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

14.1. UN number	UN1263
14.2. UN proper shipping name	PAINT
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

1-Methyl-2-Pyrrolidinone (CAS 872-50-4)

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

1-Methyl-2-Pyrrolidinone (CAS 872-50-4)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

1-Propanol (CAS 71-23-8)

Propylene Glycol Methyl Ether (CAS 107-98-2)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R10 Flammable.
R11 Highly flammable.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37 Irritating to respiratory system.
R41 Risk of serious damage to eyes.
R61 May cause harm to the unborn child.
R67 Vapours may cause drowsiness and dizziness.
H224 Extremely flammable liquid and vapour.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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.