



SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet S2039-US-SDS

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

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Version: 3.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : SYSTEM 20 STANDARD HARDENER 2.1 VOC
 UP Number : UP2391, UP2392, UP2393, UP2395

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Coatings and paints, thinners, paint removers
 Recommended use : Hardener
 Restrictions on use : Consumer uses: Private households (= general public = consumers)

1.3. Supplier

U-POL US Inc
 108 Commerce Way
 Easton, PA 18040 - United States
 T 1-800-340-7824 - F 1-800-787-5150
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC - 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

| | |
|--|-------------------------------------|
| Flammable liquids Category 2 | Highly flammable liquid and vapor |
| Serious eye damage/eye irritation Category 2 | Causes serious eye irritation |
| Skin sensitization, Category 1 | May cause an allergic skin reaction |
| Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation | May cause respiratory irritation |
| Specific target organ toxicity — Single exposure, Category 3, Narcosis | May cause drowsiness or dizziness |

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Highly flammable liquid and vapor
 May cause an allergic skin reaction
 Causes serious eye irritation
 May cause respiratory irritation
 May cause drowsiness or dizziness

Precautionary statements (GHS US) :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep container tightly closed.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Avoid breathing fume, spray, vapors.
 Wash hands thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear face protection, protective clothing, protective gloves.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 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.

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

Call a doctor if you feel unwell.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use foam, extinguishing powder, dry sand to extinguish.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

2.4. Unknown acute toxicity (GHS US)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|---|----------------------|---------|--|
| hexamethylene diisocyanate oligomers | (CAS-No.) 28182-81-2 | < 43 | Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335 |
| methyl acetate | (CAS-No.) 79-20-9 | 23 – 43 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 |
| 4-chlorobenzotrifluoride | (CAS-No.) 98-56-6 | 23 – 43 | Flam. Liq. 3, H226 Skin Sens. 1, H317 Carc. 2, H351 Aquatic Chronic 2, H411 |
| n-butyl acetate | (CAS-No.) 123-86-4 | < 5 | Flam. Liq. 3, H226 STOT SE 3, H336 |
| solvent naphtha (petroleum), light aromatic | (CAS-No.) 64742-95-6 | < 5 | Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 |

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

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

- Symptoms/effects : May cause drowsiness or dizziness.
- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.
Reactivity : Highly flammable liquid and vapor.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves.
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing vapors, spray, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain released product.
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing vapors, spray, fume. Avoid contact with skin and eyes.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Storage temperature : < 25 °C
Storage area : Keep container in a well-ventilated place.
Special rules on packaging : Keep only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| methyl acetate (79-20-9) | | |
|--------------------------|----------------------|---|
| ACGIH | Local name | Methyl acetate |
| ACGIH | ACGIH OEL TWA [ppm] | 200 ppm |
| ACGIH | ACGIH OEL STEL [ppm] | 250 ppm |
| ACGIH | Remark (ACGIH) | TLV® Basis: Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina) |
| ACGIH | Regulatory reference | ACGIH 2021 |

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

| methyl acetate (79-20-9) | | |
|---|--------------------------------|---------------------------|
| OSHA | OSHA PEL (TWA) [1] | 610 mg/m ³ |
| OSHA | OSHA PEL (TWA) [2] | 200 ppm |
| OSHA | Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| 4-chlorobenzotrifluoride (98-56-6) | | |
| Not applicable | | |
| n-butyl acetate (123-86-4) | | |
| ACGIH | Local name | n-Butyl acetate |
| ACGIH | ACGIH OEL TWA [ppm] | 50 ppm |
| ACGIH | ACGIH OEL STEL [ppm] | 150 ppm |
| ACGIH | Remark (ACGIH) | TLV® Basis: Eye & URT irr |
| ACGIH | Regulatory reference | ACGIH 2021 |
| OSHA | OSHA PEL (TWA) [1] | 710 mg/m ³ |
| OSHA | OSHA PEL (TWA) [2] | 150 ppm |
| OSHA | Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| solvent naphtha (petroleum), light aromatic (64742-95-6) | | |
| Not applicable | | |
| hexamethylene diisocyanate oligomers (28182-81-2) | | |
| Not applicable | | |

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gas mask. Gloves. Protective clothing. Safety glasses.

Materials for protective clothing:

Impermeable clothing

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Air-fed respiratory protective equipment should be worn when this product is sprayed

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

| | |
|---|---|
| Appearance | : Liquid. |
| Color | : Colorless |
| Odor | : aromatic |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : > 35 °C |
| Flash point | : < 0 °C |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 1.11 (1.1 – 1.12) g/cm ³ |
| Solubility | : insoluble in water. soluble in most organic solvents. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| No data available | Viscosity, kinematic : 32 mm ² /s (14 s DIN4 @ 20°C) |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

| | |
|----------------------------|-------------------------|
| As Packaged Regulatory VOC | : 113 g/l (0.94 lb/gal) |
| As Packaged Actual VOC | : 46 g/l (0.38 lb/gal) |
| Water Content | 0 wt% |
| Exempt Compounds by volume | : 59.4 vol % |
| Exempt Compounds by weight | : 58.5 wt% |
| Volatiles | : 62.6 wt% |
| % EPA HAPS | : 0.1 wt% |
| Percent Solids | : 37.35 wt% |
| Percent Solids | : 37.53 vol % |

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

| methyl acetate (79-20-9) | |
|---------------------------------|---|
| LD50 oral rat | 6482 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |
| LD50 dermal rat | > 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat | 49 mg/l |
| ATE US (oral) | 6482 mg/kg body weight |
| ATE US (vapors) | 49 mg/l/4h |
| ATE US (dust, mist) | 49 mg/l/4h |

| 4-chlorobenzotrifluoride (98-56-6) | |
|---|---|
| LD50 dermal rabbit | > 3300 mg/kg body weight Animal: rabbit |
| LC50 Inhalation - Rat | > 32.03 mg/l air Animal: rat, Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |

| n-butyl acetate (123-86-4) | |
|-----------------------------------|---|
| LD50 oral rat | 10760 – 12789 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral) |
| LD50 dermal rabbit | 14112 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal) |
| LC50 Inhalation - Rat [ppm] | 390 ppm/4h |
| ATE US (oral) | 10760 mg/kg body weight |
| ATE US (dermal) | 14112 mg/kg body weight |
| ATE US (gases) | 390 ppmV/4h |

| solvent naphtha (petroleum), light aromatic (64742-95-6) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |
| LD50 dermal rabbit | > 3160 mg/kg (OECD Test Guideline 402) |

| hexamethylene diisocyanate oligomers (28182-81-2) | |
|--|--|
| LD50 oral rat | > 2500 mg/kg (OECD Test Guideline 423, rat, female) |
| LD50 dermal rat | > 2000 mg/kg (OECD Test Guideline 402, rat, male/female) |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 0.39 mg/l/4h |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

| 4-chlorobenzotrifluoride (98-56-6) | |
|---|--------------------------------------|
| IARC group | 2B - Possibly carcinogenic to humans |

Reproductive toxicity : Not classified
STOT-single exposure : May cause respiratory irritation. May cause drowsiness or dizziness.

| methyl acetate (79-20-9) | |
|---------------------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |

| n-butyl acetate (123-86-4) | |
|-----------------------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |

| solvent naphtha (petroleum), light aromatic (64742-95-6) | |
|---|--|
| STOT-single exposure | May cause drowsiness or dizziness. May cause respiratory irritation. |

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

| hexamethylene diisocyanate oligomers (28182-81-2) | |
|--|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |

STOT-repeated exposure : Not classified

| methyl acetate (79-20-9) | |
|---|------------------------|
| LOAEC (inhalation, rat, vapor, 90 days) | 2000 mg/l |
| NOAEC (inhalation, rat, vapor, 90 days) | 1057 mg/m ³ |

| 4-chlorobenzotrifluoride (98-56-6) | |
|---|-----------------------------------|
| LOAEL (oral, rat, 90 days) | 150 mg/kg body weight Animal: rat |

Aspiration hazard : Not classified
Viscosity, kinematic : 32 mm²/s (14 s DIN4 @ 20°C)
Symptoms/effects : May cause drowsiness or dizziness.
Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : May cause an allergic skin reaction.
Symptoms/effects after eye contact : Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| methyl acetate (79-20-9) | |
|---------------------------------|---|
| LC50 - Fish [1] | 250 – 350 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | 1026.7 mg/l Test organisms (species): Daphnia magna |

| 4-chlorobenzotrifluoride (98-56-6) | |
|---|---|
| LC50 - Fish [1] | 3 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |

| n-butyl acetate (123-86-4) | |
|-----------------------------------|--|
| LC50 - Fish [1] | 18 mg/l Test organisms (species): Pimephales promelas |
| EC50 - Crustacea [1] | 44 mg/l Test organisms (species): Daphnia sp. |
| LC50 - Fish [2] | 62 mg/l (Leuciscus idus, static system) |
| NOEC (chronic) | 23 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic crustacea | 23 mg/l |

12.2. Persistence and degradability

| methyl acetate (79-20-9) | |
|---------------------------------|---------------------------------|
| Persistence and degradability | Readily biodegradable in water. |

| 4-chlorobenzotrifluoride (98-56-6) | |
|---|---|
| Persistence and degradability | Biodegradability in water: no data available. |

| n-butyl acetate (123-86-4) | |
|-----------------------------------|------------------------------------|
| Persistence and degradability | Readily biodegradable in water. |
| ThOD | 2.21 g O ₂ /g substance |
| BOD (% of ThOD) | 0.46 |

| solvent naphtha (petroleum), light aromatic (64742-95-6) | |
|---|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |

12.3. Bioaccumulative potential

| methyl acetate (79-20-9) | |
|---|--|
| BCF - Fish [1] | < 1 (Pisces, Literature study) |
| Partition coefficient n-octanol/water (Log Pow) | 0.18 (Experimental value, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| 4-chlorobenzotrifluoride (98-56-6) | |
|---|--|
| Partition coefficient n-octanol/water (Log Pow) | 3.6 |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

| n-butyl acetate (123-86-4) | |
|---|--|
| BCF - Fish [1] | 15.3 (Calculated value) |
| Partition coefficient n-octanol/water (Log Pow) | 2.3 (Test data, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| solvent naphtha (petroleum), light aromatic (64742-95-6) | |
| Partition coefficient n-octanol/water (Log Pow) | 2.1 – 6 |
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

| methyl acetate (79-20-9) | |
|--|--|
| Surface tension | 24 mN/m (20 °C) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.18 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP) |
| Ecology - soil | Highly mobile in soil. |
| n-butyl acetate (123-86-4) | |
| Surface tension | 0.0163 N/m (20 °C) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR) |
| Ecology - soil | Low potential for adsorption in soil. |

12.5. Other adverse effects

SECTION 13: Disposal considerations

13.1. Disposal methods

| | |
|------------------------------|---|
| Regional legislation (waste) | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Additional information | : Flammable vapors may accumulate in the container. |

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

| | |
|--------------------------------------|---|
| Transport document description (DOT) | : UN1263 Paint related material, 3, II |
| UN-No.(DOT) | : UN1263 |
| Proper Shipping Name (DOT) | : Paint related material |
| Class (DOT) | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 |
| Packing group (DOT) | : II - Medium Danger |
| Hazard labels (DOT) | : 3 - Flammable liquid |



| | |
|---|-------|
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 173 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 242 |

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

| | |
|--|--|
| DOT Special Provisions (49 CFR 172.102) | : 149 - When transported as a limited quantity or a consumer commodity, the maximum net capacity specified in 173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons). 367 - For the purposes of documentation and package marking: a. The proper shipping name "Paint related material" may be used for consignments of packages containing "Paint" and "Paint related material" in the same package; b. The proper shipping name "Paint related material, corrosive, flammable" may be used for consignments of packages containing "Paint, corrosive, flammable" and "Paint related material, corrosive, flammable" in the same package; c. The proper shipping name "Paint related material, flammable, corrosive" may be used for consignments of packages containing "Paint, flammable, corrosive" and "Paint related material, flammable, corrosive" in the same package; and d. The proper shipping name "Printing ink related material" may be used for consignments of packages containing "Printing ink" and "Printing ink related material" in the same package. 383 - Packages containing toy plastic or paper caps for toy pistols described as "UN0349, Articles, explosive, n.o.s. (Toy caps), 1.4S" or "NA0337, Toy caps, 1.4S" are not subject to the subpart E (labeling) requirements of this part when offered for transportation by motor vehicle, rail freight, cargo vessel, and cargo aircraft and, notwithstanding the packing method assigned in §173.62 of this subchapter, in conformance with the following conditions: B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. B131 - When transported by highway, rail, or cargo vessel, waste Paint and Paint related material (UN1263; PG II and PG III), when in plastic or metal inner packagings of not more than 26.5 L (7 gallons), are excepted from the marking requirements in §172.301(a) and (c) and the labeling requirements in §172.400(a), when further packed in the following specification and non-specification bulk outer packagings and under the following conditions: a. Primary receptacles must conform to the general packaging requirements of subpart B of part 173 of this subchapter and may not leak. If they do leak, they must be overpacked in packagings conforming to the specification requirements of part 178 of this subchapter or in salvage packagings conforming to the requirements in §173.12 of this subchapter. b. Primary receptacles must be further packed in non-specification bulk outer packagings such as cubic yard boxes, plastic rigid-wall bulk containers, dump trailers, and roll-off containers. Bulk outer packagings must be liquid tight through design or by the use of lining materials. c. Primary receptacles may also be further packed in specification bulk outer packagings. Authorized specification bulk outer packagings are UN11G fiberboard intermediate bulk containers (IBC) and UN13H4 woven plastic, coated and with liner flexible intermediate bulk containers (FIBCs) meeting the Packing Group II performance level and lined with a plastic liner of at least 6 mil thickness. d. All inner packagings placed inside bulk outer packagings must be blocked and braced to prevent movement during transportation that could cause the container to open or fall over. Specification IBCs and FIBCs are to be secured to a pallet. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32 F). TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 150 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 5 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 60 L |
| DOT Vessel Stowage Location | : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded. |
| Emergency Response Guide (ERG) Number | : 128 |
| Other information | : No supplementary information available. |

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

Transportation of Dangerous Goods

| | |
|---|---|
| Transport document description (TDG) | : UN1263 PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) with not more than 20 per cent nitrocellulose by mass if the nitrogen content of the nitrocellulose is not more than 12.6 per cent by mass), 3, II |
| UN-No. (TDG) | : UN1263 |
| Proper Shipping Name (TDG) | : PAINT |
| TDG Primary Hazard Classes | : 3 - Class 3 - Flammable Liquids |
| Packing group (TDG) | : II - Medium Danger |
| TDG Special Provisions | : 59 - Substances that are listed by name in Schedule 1 must not be transported under this shipping name. Substances transported under this shipping name may contain not more than 20% nitrocellulose if the nitrocellulose contains not more than 12.6% nitrogen (by dry mass), 142 - The following shipping names may be used to meet the requirements of Part 3 (Documentation) and Part 4 (Dangerous Goods Safety Marks) when these dangerous goods are offered for transport in the same means of containment: (a) "PAINT RELATED MATERIAL" may be used for a means of containment containing both paint and paint related material; (b) "PAINT RELATED MATERIAL, CORROSIVE, FLAMMABLE" may be used for a means of containment containing both paint, corrosive, flammable, and paint related material, corrosive, flammable; (c) "PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE" may be used for a means of containment containing both paint, flammable, corrosive, and paint related material, flammable, corrosive; and (d) "PRINTING INK RELATED MATERIAL" may be used for a means of containment containing both printing ink and printing ink related material. |
| Explosive Limit and Limited Quantity Index | : 5 L |
| Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index | : 5 L |

Transport by sea

| | |
|---------------------------------------|---|
| Transport document description (IMDG) | : UN 1263 PAINT RELATED MATERIAL, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS |
| UN-No. (IMDG) | : 1263 |
| Proper Shipping Name (IMDG) | : PAINT RELATED MATERIAL |
| Class (IMDG) | : 3 - Flammable liquids |
| Packing group (IMDG) | : II - substances presenting medium danger |
| Limited quantities (IMDG) | : 5 L |

Air transport

| | |
|---------------------------------------|---|
| Transport document description (IATA) | : UN 1263 Paint, 3, II, ENVIRONMENTALLY HAZARDOUS |
| UN-No. (IATA) | : 1263 |
| Proper Shipping Name (IATA) | : Paint |
| Class (IATA) | : 3 - Flammable Liquids |
| Packing group (IATA) | : II - Medium Danger |

SECTION 15: Regulatory information

15.1. US Federal regulations

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

methyl acetate (79-20-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

4-chlorobenzotrifluoride (98-56-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

n-butyl acetate (123-86-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

| | |
|---|---|
| solvent naphtha (petroleum), light aromatic (64742-95-6) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| hexamethylene diisocyanate oligomers (28182-81-2) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |

15.2. International regulations

CANADA

| |
|---|
| methyl acetate (79-20-9) |
| Listed on the Canadian DSL (Domestic Substances List) |
| 4-chlorobenzotrifluoride (98-56-6) |
| Listed on the Canadian DSL (Domestic Substances List) |
| n-butyl acetate (123-86-4) |
| Listed on the Canadian DSL (Domestic Substances List) |
| solvent naphtha (petroleum), light aromatic (64742-95-6) |
| Listed on the Canadian DSL (Domestic Substances List) |
| hexamethylene diisocyanate oligomers (28182-81-2) |
| Listed on the Canadian DSL (Domestic Substances List) |

EU-Regulations

No additional information available

National regulations

| |
|--|
| 4-chlorobenzotrifluoride (98-56-6) |
| Listed on IARC (International Agency for Research on Cancer) |

15.3. US State regulations

⚠ WARNING: This product can expose you to 4-chlorobenzotrifluoride, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

| Component | Carcinogenicity | Developmental toxicity | Reproductive toxicity male | Reproductive toxicity female | No significant risk level (NSRL) | Maximum allowable dose level (MADL) |
|-----------------------------------|-----------------|------------------------|----------------------------|------------------------------|----------------------------------|-------------------------------------|
| 4-chlorobenzotrifluoride(98-56-6) | X | | | | | |

| Component | State or local regulations |
|---------------------------|---|
| n-butyl acetate(123-86-4) | U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List |
| methyl acetate(79-20-9) | U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

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

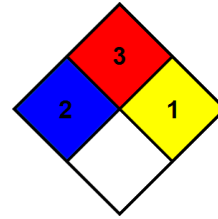
Revision date : 01/09/2020

SYSTEM 20 STANDARD HARDENER 2.1 VOC

Safety Data Sheet

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

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
- NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



SDS US GHS (GHS HazCom2012)

For professional use only.

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