

Safety Data Sheet



LTT371 CROMATO Ottone - P - Chromate Brass - P

Safety Data Sheet dated 7/22/2019, version 1

1. Identification

GHS Product identifier
 Mixture identification:
 Trade name: CROMATO Ottone - P - Chromate Brass - P
 Other means of identification
 Trade code: LTT371

Recommended use and restrictions on use
 Recommended use:
 Industrial and professional uses (SU3 - SU22)
 Varnish

Supplier's details
 Company:
 NUOVA S.I.V.A.M. SpA - Via Monviso, 10 - 20010 BAREGGIO (MI) - Tel. +39 02 90304.1
 Importer:
 Quincaillerie Richelieu Ltée/Richelieu Hardware Ltd.
 7900 Henri-Bourassa Blvd. W.
 Montreal, Quebec, Canada, H4S 1V4
 Tel :+1-514-832-4010
 Emergency phone number for Canada: Canutec (613) 996-6666
 Distributor:
 Quincaillerie Richelieu Ltée/Richelieu Hardware Ltd.
 7900 Henri-Bourassa Blvd. W.
 Montreal, Quebec, Canada, H4S 1V4
 Tel :+1-514-832-4010
 Emergency phone number for Canada: Canutec (613) 996-6666

Competent person responsible for the safety data sheet:
 msds@sivam.it

Emergency phone number
 NUOVA S.I.V.A.M. SpA - Tel. +39 02 90304.1 (Monday - Friday 8.00 - 15.00)
 Poison Centre - Ospedale di Niguarda - Milan - Tel. +39 02 66101029 (24 h)

2. Hazard identification

Classification of the hazardous product

- ⚠ Danger, Flam. Liq. 2, Highly flammable liquid and vapour.
- ⚠ Warning, Eye Irrit. 2A, Causes serious eye irritation.
- ⚠ Warning, Repr. 2, Suspected of damaging fertility or the unborn child.
- ⚠ Warning, STOT SE 3, May cause drowsiness or dizziness.
- ⚠ Warning, STOT RE 2, May cause damage to organs through prolonged or repeated exposure.

GHS label elements, including precautionary statements
 Hazard pictograms:



Danger
 Hazard statements:
 H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H361 Suspected of damaging fertility or the unborn child.
 H336 May cause drowsiness or dizziness.
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
 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.
 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 dust/fume/gas/mist/vapours/spray.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash ... Thoroughly after handling.

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P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 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.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P312 Call a POISON CENTER/ doctor/if you feel unwell.
 P314 Get medical advice/attention if you feel unwell.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P370+P378 In case of fire: Use ... to extinguish.
 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.
 P501 Dispose of contents/container in accordance with applicable regulations.

Special provisions

None

Other hazards

None

Ingredient(s) with unknown acute toxicity

None.

3. Composition/Information on ingredients

Substances

N.A.







Mixtures

Hazardous components within the meaning of WHMIS 2015 and related classification:

Qty	Name	Ident. Number	Classification
>= 15% - < 40%	isobutyl acetate [2]	Index number: 607-026-00-7 CAS: 110-19-0 EC: 203-745-1 REACH No.: 01-2119488971-22	⚠ B.6/2 Flam. Liq. 2 H225 ⚠ A.8/3 STOT SE 3 H336
>= 15% - < 40%	ethyl acetate	Index number: 607-022-00-5 CAS: 141-78-6 EC: 205-500-4 REACH No.: 01-2119475103-46	⚠ B.6/2 Flam. Liq. 2 H225 ⚠ A.3/2A Eye Irrit. 2A H319 ⚠ A.8/3 STOT SE 3 H336
>= 3% - < 7%	1-methoxy-2-propanol; monopropylene glycol methyl ether	Index number: 603-064-00-3 CAS: 107-98-2 EC: 203-539-1 REACH No.: 01-2119457435-35	⚠ B.6/3 Flam. Liq. 3 H226 ⚠ A.8/3 STOT SE 3 H336
>= 3% - < 7%	acetone; propan-2-one; propanone	Index number: 606-001-00-8 CAS: 67-64-1 EC: 200-662-2 REACH No.: 01-2119471330-49	⚠ B.6/2 Flam. Liq. 2 H225 ⚠ A.8/3 STOT SE 3 H336
>= 1% - < 5%	cyclohexanone	Index number: 606-010-00-7 CAS: 108-94-1 EC: 203-631-1 REACH No.: 01-2119453616-35	⚠ B.6/3 Flam. Liq. 3 H226 ⚠ A.1/4/Oral Acute Tox. 4 H302 ⚠ A.1/4/Dermal Acute Tox. 4 H312 ⚠ A.2/2 Skin Irrit. 2 H315 ⚠ A.3/1 Eye Dam. 1 H318 ⚠ A.1/4/Inhal Acute Tox. 4 H332
>= 1% - < 5%	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve	Index number: 603-014-00-0 CAS: 111-76-2 EC: 203-905-0 REACH No.: 01-2119475108-36	⚠ A.2/2 Skin Irrit. 2 H315 ⚠ A.3/2A Eye Irrit. 2A H319 B.6/4 Flam. Liq. 4 H227 ⚠ A.1/4/Oral Acute Tox. 4 H302 ⚠ A.1/4/Dermal Acute Tox. 4 H312 ⚠ A.1/4/Inhal Acute Tox. 4 H332

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>= 1% - < 5%	toluene	Index number: 601-021-00-3 CAS: 108-88-3 EC: 203-625-9 REACH No.: 01-2119471310-51	 B.6/2 Flam. Liq. 2 H225  A.7/2 Repr. 2 H361  A.10/1 Asp. Tox. 1 H304  A.9/2 STOT RE 2 H373  A.2/2 Skin Irrit. 2 H315  A.8/3 STOT SE 3 H336
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The actual concentration of the components listed above is withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

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

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

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

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed, if necessary

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

5. Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

In case of fire: Use ... to extinguish.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the hazardous product

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products:

None

Explosive properties:

N.D. in volume

Oxidizing properties:

N.D.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

Methods and material for containment and cleaning up

Wash with plenty of water.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Do not use on extensive surface areas in premises where there are occupants.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

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Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Avoid accumulating electrostatic charge.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Safety electric system.

Storage temperature:

Store at ambient temperature.

8. Exposure controls/personal protection

Control parameters

isobutyl acetate [2] - CAS: 110-19-0

ACGIH - TWA(8h): 50 ppm - STEL: 150 ppm - Notes: Eye and URT irr

ethyl acetate - CAS: 141-78-6

ACGIH - TWA(8h): 400 ppm - Notes: URT and eye irr

EU - TWA(8h): 734 mg/m³, 200 ppm - STEL: 1468 mg/m³, 400 ppm

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

EU - TWA(8h): 375 mg/m³, 100 ppm - STEL: 563 mg/m³, 150 ppm - Notes: Skin

ACGIH - TWA(8h): 50 ppm - STEL: 100 ppm - Notes: A4 - Eye and URT irr

acetone; propan-2-one; propanone - CAS: 67-64-1

EU - TWA(8h): 1210 mg/m³, 500 ppm

ACGIH - TWA(8h): 250 ppm - STEL: 500 ppm - Notes: A4, BEI - URT and eye irr, CNS impair

cyclohexanone - CAS: 108-94-1

EU - TWA(8h): 40.8 mg/m³, 10 ppm - STEL: 81.6 mg/m³, 20 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - STEL: 50 ppm - Notes: Skin, A3 - Eye and URT irr

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2

EU - TWA(8h): 98 mg/m³, 20 ppm - STEL: 246 mg/m³, 50 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr

toluene - CAS: 108-88-3

EU - TWA(8h): 192 mg/m³, 50 ppm - STEL: 384 mg/m³, 100 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - Notes: A4, BEI - Visual impair, female repro, pregnancy loss

DNEL Exposure Limit Values

isobutyl acetate [2] - CAS: 110-19-0

Worker Industry: 300 mg/m³ - Worker Professional: 300 mg/m³ - Consumer: 35.7 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 600 mg/m³ - Worker Professional: 600 mg/m³ - Consumer: 300 mg/m³ - Exposure: Human

Inhalation - Frequency: Short Term, systemic effects

Worker Industry: 10 mg/kg - Worker Professional: 10 mg/kg - Consumer: 5 mg/kg - Exposure: Human Dermal -

Frequency: Long Term, systemic effects

Consumer: 5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

ethyl acetate - CAS: 141-78-6

Worker Industry: 1468 mg/m³ - Worker Professional: 1468 mg/m³ - Consumer: 734 mg/m³ - Exposure: Human

Inhalation - Frequency: Short Term, systemic effects

Worker Industry: 1468 mg/m³ - Worker Professional: 1468 mg/m³ - Consumer: 734 mg/m³ - Exposure: Human

Inhalation - Frequency: Short Term, local effects

Worker Industry: 63 mg/kg - Worker Professional: 63 mg/kg - Consumer: 37 mg/kg - Exposure: Human Dermal -

Frequency: Long Term, systemic effects

Worker Industry: 734 mg/m³ - Worker Professional: 734 mg/m³ - Consumer: 367 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 734 mg/m³ - Worker Professional: 734 mg/m³ - Consumer: 367 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, local effects

Consumer: 4.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

Worker Industry: 553.5 mg/m³ - Worker Professional: 553.5 mg/m³ - Exposure: Human Inhalation - Frequency:

Short Term, local effects

Worker Industry: 369 mg/m³ - Worker Professional: 369 mg/m³ - Consumer: 43.9 - Exposure: Human Inhalation -

Frequency: Long Term, systemic effects

Worker Industry: 183 mg/kg - Worker Professional: 183 mg/kg - Consumer: 78 mg/kg - Exposure: Human Dermal -

Frequency: Long Term, systemic effects

Consumer: 33 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

acetone; propan-2-one; propanone - CAS: 67-64-1

Worker Industry: 186 mg/kg - Worker Professional: 186 mg/kg - Consumer: 62 mg/kg - Exposure: Human Dermal -

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Frequency: Long Term, systemic effects
 Worker Industry: 2420 mg/m³ - Worker Professional: 2420 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
 Worker Industry: 1210 mg/m³ - Worker Professional: 1210 mg/m³ - Consumer: 200 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 Consumer: 62 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

cyclohexanone - CAS: 108-94-1
 Worker Industry: 4 mg/kg - Worker Professional: 4 mg/kg - Consumer: 1 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
 Worker Industry: 40 mg/m³ - Worker Professional: 40 mg/m³ - Consumer: 10 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 Consumer: 1.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2
 Worker Industry: 125 mg/kg - Worker Professional: 125 mg/kg - Consumer: 75 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
 Worker Industry: 98 mg/m³ - Worker Professional: 98 mg/m³ - Consumer: 59 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 Consumer: 6.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

toluene - CAS: 108-88-3
 Worker Industry: 384 mg/kg - Worker Professional: 384 mg/kg - Consumer: 226 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
 Worker Industry: 192 mg/m³ - Worker Professional: 192 mg/m³ - Consumer: 56.5 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
 Consumer: 8.13 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

isobutyl acetate [2] - CAS: 110-19-0
 Target: Fresh Water - Value: 0.17 mg/l
 Target: Marine water - Value: 0.017 mg/l
 Target: Intermittent emission - Value: 0.34 mg/l
 Target: Microorganisms in sewage treatments - Value: 200 mg/l
 Target: Freshwater sediments - Value: 0.877 mg/kg
 Target: Marine water sediments - Value: 0.0877 mg/kg
 Target: Soil (agricultural) - Value: 0.0755 mg/kg

ethyl acetate - CAS: 141-78-6
 Target: Fresh Water - Value: 0.24 mg/l
 Target: Marine water - Value: 0.02 mg/l
 Target: Intermittent emission - Value: 1.65 mg/l
 Target: Microorganisms in sewage treatments - Value: 650 mg/l
 Target: Freshwater sediments - Value: 1.15 mg/kg
 Target: Marine water sediments - Value: 0.115 mg/kg
 Target: Soil (agricultural) - Value: 0.148 mg/kg
 Target: Food chain - Value: 200 mg/kg

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
 Target: Fresh Water - Value: 10 mg/l
 Target: Marine water - Value: 1 mg/l
 Target: Intermittent emission - Value: 100 mg/l
 Target: Freshwater sediments - Value: 52.3 mg/kg
 Target: Marine water sediments - Value: 5.2 mg/kg
 Target: Soil (agricultural) - Value: 4.59 mg/kg
 Target: Microorganisms in sewage treatments - Value: 100 mg/l

acetone; propan-2-one; propanone - CAS: 67-64-1
 Target: Fresh Water - Value: 10.6 mg/l
 Target: Marine water - Value: 1.06 mg/l
 Target: Intermittent emission - Value: 21 mg/l
 Target: Microorganisms in sewage treatments - Value: 100 mg/l
 Target: Freshwater sediments - Value: 30.4 mg/kg
 Target: Marine water sediments - Value: 3.04 mg/kg
 Target: Soil (agricultural) - Value: 29.5 mg/kg

cyclohexanone - CAS: 108-94-1
 Target: Fresh Water - Value: 0.033 mg/l
 Target: Marine water - Value: 0.0033 mg/l
 Target: Freshwater sediments - Value: 0.168 mg/kg
 Target: Marine water sediments - Value: 0.017 mg/kg
 Target: Intermittent emission - Value: 0.329 mg/l
 Target: Microorganisms in sewage treatments - Value: 10 mg/l
 Target: Soil (agricultural) - Value: 0.014 mg/kg

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2
 Target: Fresh Water - Value: 8.8 mg/l
 Target: Marine water - Value: 0.88 mg/l

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Target: Intermittent emission - Value: 9.1 mg/l
 Target: Freshwater sediments - Value: 8.14 mg/kg
 Target: Marine water sediments - Value: 3.46 mg/kg
 Target: Microorganisms in sewage treatments - Value: 463 mg/l
 Target: Food chain - Value: 20 mg/kg
 Target: Soil (agricultural) - Value: 2.33 mg/kg
 toluene - CAS: 108-88-3
 Target: Fresh Water - Value: 0.68 mg/l
 Target: Marine water - Value: 0.68 mg/l
 Target: Intermittent emission - Value: 0.68 mg/l
 Target: Freshwater sediments - Value: 16.39 mg/kg
 Target: Marine water sediments - Value: 16.39 mg/kg
 Target: Microorganisms in sewage treatments - Value: 13.61 mg/l
 Target: Soil (agricultural) - Value: 2.89 mg/kg
 Biological Exposure Index
 toluene - CAS: 108-88-3
 Value: 0.02 mg/L - medium: Blood - Biological Indicator: Toluene in blood - Sampling Period: End of turn; End of working week
 Appropriate engineering controls
 None
 Individual protection measures, such as personal protective equipment (PPE)
 Eye protection:
 Eye glasses with side protection. (EN166)
 Protection for skin:
 Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
 Protection for hands:
 Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber. (EN374)
 Respiratory protection:
 Use adequate protective respiratory equipment.
 Thermal Hazards:
 None

9. Physical and chemical properties

Appearance and colour:	coloured fluid
Odour:	typical
Odour threshold:	N.D.
pH:	N.A.
Melting point / freezing point:	N.D. °C
Initial boiling point and boiling range:	> 55 °C
Flash point:	< 0 °C
Evaporation rate:	N.D.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	11.5% - 2.1% Vol. (Ethyl acetate)
Vapour pressure:	N.D. (20 °C)
Vapour density:	> 1
Relative density:	0.900 - 0.920
Solubility in water:	partial
Solubility in oil:	partial
Partition coefficient (n-octanol/water):	N.D.
Auto-ignition temperature:	> 300 °C
Decomposition temperature:	N.D. °C
Viscosity:	N.D.

10. Stability and reactivity

Reactivity
 It may generate dangerous reactions (See subsections below)
 Chemical stability
 It may generate dangerous reactions (See subsections below)
 Possibility of hazardous reactions
 It may generate flammable gases on contact with elementary metals (alkalis and alkaline earth), and nitrides.
 It may catch fire on contact with oxidising mineral acids, powerful oxidising agents, and powerful reducing agents.
 Conditions to avoid
 Avoid accumulating electrostatic charge.
 Incompatible materials
 Avoid contact with combustible materials. The product could catch fire.
 Hazardous decomposition products
 None.

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11. Toxicological information

Information on toxicological effects

Toxicological information of the product:

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- a) acute toxicity
Not classified
No data available for the product
- b) skin corrosion/irritation
Not classified
No data available for the product
- c) serious eye damage/irritation
The product is classified: Eye Irrit. 2A H319
- d) respiratory or skin sensitisation
Not classified
No data available for the product
- e) germ cell mutagenicity
Not classified
No data available for the product
- f) carcinogenicity
Not classified
No data available for the product
- g) reproductive toxicity
The product is classified: Repr. 2 H361
- h) STOT-single exposure
The product is classified: STOT SE 3 H336
- i) STOT-repeated exposure
The product is classified: STOT RE 2 H373
- j) aspiration hazard
Not classified
No data available for the product

Toxicological information of the main substances found in the product:

isobutyl acetate [2] - CAS: 110-19-0

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 13.4 g/kg - Source: OCSE 401
Test: LD50 - Route: Oral - Species: Rabbit = 4.76 g/kg
Test: LC50 - Route: Inhalation - Species: Rat > 23.4 mg/l - Duration: 4h - Source: OCSE 403
Test: LD50 - Route: Skin - Species: Rabbit > 17.4 g/kg - Source: OCSE 402

ethyl acetate - CAS: 141-78-6

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 4934 mg/kg - Source: OCSE 401
Test: LD50 - Route: Skin - Species: Rabbit > 20000 mg/kg

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 4016 mg/kg
Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat = 54.6 mg/l - Duration: 4h

acetone; propan-2-one; propanone - CAS: 67-64-1

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 5800 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 20 ml/kg
Test: LC50 - Route: Inhalation - Species: Rat = 76 mg/l - Duration: 4h

cyclohexanone - CAS: 108-94-1

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 1890 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 794 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 6.2 ml/l - Duration: 4h

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 1300 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 523 Ppm - Duration: 4h
Test: LC50 - Route: Skin - Species: Rabbit > 435 mg/kg

toluene - CAS: 108-88-3

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 5580 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat = 28.1 mg/l - Duration: 4h - Source: OECD 403

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit = 500 mg/kg - Source: OECD 404 - Notes: 24h

ethyl acetate - CAS: 141-78-6

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The product is extremely volatile and provokes for inhalation, irritation to respiratory tracts. Acute exposition can cause depression of central nervous system with effects such as drowsiness, reflex loss, narcosis.

acetone; propan-2-one; propanone - CAS: 67-64-1

Observations on human subjects:

Acetone's routes of entry to the body are skin absorption, swallowing and, especially, inhalation. It is eliminated through the lungs (40-70%), in urine (15-30%), and through the skin (10%). Tests carried out with C14 have demonstrated that acetone takes part as an intermediary in the metabolism of lipids and indirectly in the glycolic cycle.

Concentrations > 300 ppm cause: slight irritation to the mucous membranes.

Subjects exposed to 500 ppm of acetone have displayed irritation to the eyes, throat, and nose.

Concentrations = 800 ppm (30') cause: malaise.

cyclohexanone - CAS: 108-94-1

The product is harmful if inhaled.

Repeated exposure can cause burning and irritation to eyes, mouth, nose and throat, cough, respiratory impairment, dizziness, cephalgia, nausea and vomiting.

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2

The product is harmful if inhaled, swallowed or absorbed through skin. Repeated or extended exposures cause headache, drowsiness, weakness, stuttering, blurred vision, urinary albumin, kidney damages, liver enlargement and haemolysis.

toluene - CAS: 108-88-3

Effects following acute exposure:

At 200 ppm: mild but definite decrease in co-ordination and in reaction time, fatigue, confusion, paraesthesia of the skin; the fatigue lasted over a number of hours together with mild insomnia.

At 400 ppm: worsening of symptoms and mental confusion.

Substance(s) listed on the NTP report on Carcinogens:

None.

Substance(s) listed on the IARC Monographs:

cyclohexanone - Group 3

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - Group 3

toluene - Group 3.

Substance(s) listed as OSHA Carcinogen(s):

None.

Substance(s) listed as NIOSH Carcinogen(s):

None.

12. Ecological information

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

CROMATO Ottone - P - Chromate Brass - P

Not classified for environmental hazards

No data available for the product

isobutyl acetate [2] - CAS: 110-19-0

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae = 397 mg/l - Duration h: 72 - Notes: OCSE 201

Endpoint: EC50 - Species: Daphnia = 24.6 mg/l - Duration h: 48 - Notes: OCSE 202

Endpoint: LC50 - Species: Fish = 16.6 mg/l - Duration h: 96 - Notes: OCSE 203

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 23.2 mg/l - Notes: OCSE 201 (21d)

ethyl acetate - CAS: 141-78-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Algae > 100 mg/l - Duration h: 72

Endpoint: EC50 - Species: Daphnia = 165 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish = 230 mg/l - Duration h: 96

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 2.4 mg/l - Notes: 21d

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Daphnia > 21100 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish > 4600 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae > 1000 mg/l - Notes: 7 d

acetone; propan-2-one; propanone - CAS: 67-64-1

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae = 530 mg/l - Duration h: 192 - Notes: (8 days)

Endpoint: LC50 - Species: Daphnia = 8800 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish = 8120 mg/l - Duration h: 96

cyclohexanone - CAS: 108-94-1

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Daphnia > 100 mg/l - Duration h: 48

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Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72
 Endpoint: EC50 - Species: Fish = 527 mg/l - Duration h: 96
 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2
 a) Aquatic acute toxicity:
 Endpoint: EC50 - Species: Algae = 623 mg/l - Duration h: 72 - Notes: OECD 201
 Endpoint: EC50 - Species: Daphnia = 1550 mg/l - Duration h: 48 - Notes: OECD 202
 Endpoint: LC50 - Species: Fish = 1474 mg/l - Duration h: 96 - Notes: OECD 203
 b) Aquatic chronic toxicity:
 Endpoint: NOEC - Species: Daphnia = 100 mg/l - Notes: 21 d
 Endpoint: NOEC - Species: Algae = 62.5 mg/l - Duration h: 72
 toluene - CAS: 108-88-3
 a) Aquatic acute toxicity:
 Endpoint: EC50 - Species: Algae = 134 mg/l - Duration h: 3
 Endpoint: EC50 - Species: Daphnia = 3.78 mg/l - Duration h: 48
 Endpoint: LC50 - Species: Fish = 5.5 mg/l - Duration h: 96
 b) Aquatic chronic toxicity:
 Endpoint: NOEC - Species: Algae = 10 mg/l - Duration h: 72
 Endpoint: NOEC - Species: Daphnia = 0.74 mg/l - Notes: 7d
 Endpoint: NOEC - Species: Fish = 1.39 mg/l - Notes: 40d
 Persistence and degradability
 isobutyl acetate [2] - CAS: 110-19-0
 Biodegradability: Readily biodegradable
 ethyl acetate - CAS: 141-78-6
 Biodegradability: Readily biodegradable - Duration h: 28 days - %: 70
 1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
 Biodegradability: Readily biodegradable - Duration h: 28 days - %: 96 - Notes: OECD 301E
 acetone; propan-2-one; propanone - CAS: 67-64-1
 Biodegradability: Readily biodegradable
 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2
 Biodegradability: Readily biodegradable - Duration h: 28 days - %: 90.4 - Notes: OECD 301B
 toluene - CAS: 108-88-3
 Biodegradability: Readily biodegradable
 Bioaccumulative potential
 N.A.
 Mobility in soil
 N.A.
 Other adverse effects
 None

13. Disposal considerations

Safe handling and methods for disposal

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. Transport information



UN number	
TDG number:	UN1263
ADR-UN Number:	1263
DOT number:	UN1263
IATA-UN Number:	1263
IMDG-UN Number:	1263
UN proper shipping name	
TDG-Shipping Name:	PAINT
ADR-Shipping Name:	PAINT
DOT-Shipping Name:	Paint including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base or Paint related material including paint thinning, drying, removing, or reducing compound
IATA-Shipping Name:	PAINT
IMDG-Shipping Name:	PAINT
Transport hazard class(es)	
TDG Class:	3
ADR-Class:	3

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DOT Hazard Class:	3
ADR - Hazard identification number:	33
IATA-Class:	3
IATA-Label:	3
IMDG-Class:	3
Packing group	
TDG Packing group:	II
ADR-Packing Group:	II
DOT Packing group:	II
IATA-Packing group:	II
IMDG-Packing group:	II
Environmental hazards	
ADR-Environmental Pollutant:	No
IMDG-Marine pollutant:	No
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)	
N.A.	
Special precautions in connection with transport or conveyance	
Rail (RID):	3
TDG Special provisions:	59,142
DOT Special provisions:	149, 367, 383, B52, B131, IB2, T4, TP1, TP8, TP28
ADR-Subsidiary risks:	-
ADR-S.P.:	163 367 640D 650
ADR-Transport category (Tunnel restriction code):	2 (D/E)
IATA-Passenger Aircraft:	353
IATA-Subsidiary risks:	-
IATA-Cargo Aircraft:	364
IATA-S.P.:	A3 A72 A192
IATA-ERG:	3L
IMDG-EmS:	F-E , S-E
IMDG-Subsidiary risks:	-
IMDG-Stowage and handling:	Category A
IMDG-Segregation:	-

15. Regulatory information

- Safety, health and environmental regulations specific for the product in question
 This Safety Data Sheet has been prepared according to the Hazardous Products Regulations (HPR) - WHMIS 2015.
- NPRI - National Pollutant Release Inventory
 Substance(s) listed under NPRI:
 ethyl acetate is listed in NPRI Part 5
 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve is listed in NPRI Part 5
 toluene is listed in NPRI Part 5.
- DSL inventory - Domestic substances list
 All the components are listed in the DSL..
- NDSL inventory - Not Domestic substances list
 no substances listed
- TSCA inventory
 All the components are listed on the TSCA inventory.
- TSCA listed substances:
 isobutyl acetate [2] is listed in TSCA Section 8b
 ethyl acetate is listed in TSCA Section 8b
 1-methoxy-2-propanol; monopropylene glycol methyl ether is listed in TSCA Section 8b, Section 8d HSDR
 acetone; propan-2-one; propanone is listed in TSCA Section 8b
 cyclohexanone is listed in TSCA Section 8b, Section 8d HSDR
 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve is listed in TSCA Section 8b, Section 8d HSDR
 toluene is listed in TSCA Section 8b, Section 8d HSDR, Section 8a - CAIR.
- USA - Federal regulations
- SARA - Superfund Amendments and Reauthorization Act
 Section 302 – Extremely Hazardous Substances: no substances listed.
 Section 304 – Hazardous substances: isobutyl acetate [2], ethyl acetate, acetone; propan-2-one; propanone, cyclohexanone, toluene.
 Section 313 – Toxic chemical list: toluene.
- CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
 Substance(s) listed under CERCLA: isobutyl acetate [2] - Reportable quantity: 5000 pounds
 ethyl acetate - Reportable quantity: 5000 pounds
 acetone; propan-2-one; propanone - Reportable quantity: 5000 pounds
 cyclohexanone - Reportable quantity: 5000 pounds
 toluene - Reportable quantity: 1000 pounds.
 Reportable quantity for mixture: 12621.8699 pounds.

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CAA - Clean Air Act

CAA listed substances:

isobutyl acetate [2] is listed in CAA Section 111

ethyl acetate is listed in CAA Section 111

1-methoxy-2-propanol; monopropylene glycol methyl ether is listed in CAA Section 112(b) - HON

acetone; propan-2-one; propanone is listed in CAA Section 111, Section 112(b) - HON

cyclohexanone is listed in CAA Section 111, Section 112(b) - HON

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve is listed in CAA Section 111

toluene is listed in CAA Section 111, Section 112(b) - HAP, Section 112(b) - HON.

CWA - Clean Water Act

CWA listed substances:

isobutyl acetate [2] is listed in CWA Section 311

ethyl acetate is listed in CWA Section 304

acetone; propan-2-one; propanone is listed in CWA Section 304

toluene is listed in CWA Section 304, Section 307, Section 311, CWA Priority Pollutants.

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

toluene - Listed as reproductive toxicant.

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

isobutyl acetate [2]

ethyl acetate

1-methoxy-2-propanol; monopropylene glycol methyl ether

acetone; propan-2-one; propanone

cyclohexanone

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve

toluene.

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

isobutyl acetate [2]

ethyl acetate

1-methoxy-2-propanol; monopropylene glycol methyl ether

acetone; propan-2-one; propanone

cyclohexanone

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve

toluene.

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

isobutyl acetate [2]

ethyl acetate

1-methoxy-2-propanol; monopropylene glycol methyl ether

acetone; propan-2-one; propanone

cyclohexanone

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve

toluene.

Volatile Organic compounds - VOCs = 98.20 %

Volatile Organic compounds - VOCs = 903.43 g/l

Volatile CMR substances = 0.01 %

Organic Carbon - C = 0.58

16. Other information

Full text of phrases referred to in Section 3:

H225 Highly flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H319 Causes serious eye irritation.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H227 Combustible liquid.

H361 Suspected of damaging fertility or the unborn child.

H304 May be fatal if swallowed and enters airways.

H373 May cause damage to organs through prolonged or repeated exposure.

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Disclaimer:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average