

Material Safety Data Sheet

acc. to ISO/DIS 11014

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1 Identification of substance

- **Product details**
- **Trade name: STAIN REMOVER**
- **Article number: 6070-001**
- **Application of the substance / the preparation** Stain removing liquid
- **Manufacturer/Supplier:**
SMILEY PRINTING SOLUTION CO.,LTD.
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Bangpre Yai, Bangpre,
Samutprakarn
10540 Thailand
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- **Information department:** Technical Services Department.

2 Composition/Data on Components

Chemical characterization

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components: 108-94-1 Cyclohexanone 20-40 %

Xn; R 10-20

Warning: Flame 2.6/3; Exclamation mark 3.1.I/4

111-76-2 2-butoxyethanol 20-40 %

Xn, Xi; R 20/21/22-36/38

Danger: Skull and crossbones 3.1.I/3, 3.1.O/4, 3.1.D/4, 3.2/2, 3.3/2A

Warning: 2.6/4

Diacetone alcohol 10-30 % Xi; R 36

Warning: Flame 2.6/3; Exclamation mark 3.3/2A

3 Hazards Identification

Hazard description: XN Harmful

Information pertaining to particular dangers for man and environment: The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the last valid version.

R 10 Flammable

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed

R 36/38 Irritating to eyes and skin

Classification system: The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)

Health = 2

Fire = 2

Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 2

Fire = 2

Reactivity = 0

GHS label elements

Skull and crossbones Danger

3.1/3 - Toxic if inhaled.

3.1/4 - Harmful if swallowed.

3.1/4 - Harmful in contact with skin.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

Flame Warning
2.6/3 - Flammable liquid and vapour.

Prevention: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment (see label). Specific measures (see label). Rinse mouth. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. In case of fire: Use for extinction: CO₂, powder or water spray.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

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

4 First Aid Measures

General Information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After Inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Immediately call a doctor.

5 Fire Fighting Measures

Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment: Mouth respiratory protective device.

6 Accidental Release Measures

Person related precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection: Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

7 Handling and Storage

Handling: Information for safe handling: Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

Storage: Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

8 Exposure Controls and Personal Protection

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

Components with limit values that require monitoring at the workplace:

108-94-1 Cyclohexanone

PEL: 200 mg/m³, 50 ppm

REL: 100 mg/m³, 25 ppm

Skin

TLV: 50 mg/m³, 20 ppm

Skin

111-76-2 2-butoxyethanol

PEL: 240 mg/m³, 50 ppm

Skin

REL: 24 mg/m³, 5 ppm

Skin

TLV: 97 mg/m³, 20 ppm

Diacetone alcohol

PEL: 240 mg/m³, 50 ppm

REL: 240 mg/m³, 50 ppm

TLV: 238 mg/m³, 50 ppm

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Breathing equipment: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands: Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

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

Penetration time of glove material

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

Eye protection: Tightly sealed goggles

9 Physical and Chemical Properties

General Information

Form: Fluid

Color: According to product specification

Odor: Characteristic

	Value/Range	Unit	Method
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Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 150 ° C

Flash point: 49 ° C

Ignition temperature: 240 ° C

Auto igniting: Product is not self igniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures is possible.

Explosion limits:

Lower: 1.1 Vol %

Upper: 10.6 Vol %

Vapor pressure: at 20 ° C 5 hPa

Density: Not determined.

Solubility in / Miscibility with Water: Fully miscible.

Solvent content:

Organic solvents: 57.2 %

Solids content: 4.4 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions No dangerous reactions known.

Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

108-94-1 Cyclohexanone

Oral: LD50: 1535 mg/kg (rat)

Dermal: LD50: 948 mg/kg (rbt)

Inhalative: LC50/4 h: 8000 mg/l (rat)

111-76-2 2-butoxyethanol

Oral: LD50: 1480 mg/kg (rat)

Dermal: LD50: 400 mg/kg (rab)

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations: Harmful, Irritant

12 Ecological information

General notes: Water hazard class 2 (Self-assessment): hazardous for water do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

Product:

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

DOT regulations:

Hazard class: 3

Identification number: UN1992

Packing group: III

Proper shipping name (technical name):

FLAMMABLE LIQUID, TOXIC, N.O.S.(CYCLOHEXANONE, 2-butoxyethanol) Label 3+6.1

Land transport ADR/RID (cross-border): ADR/RID class: 3 Flammable liquids

Danger code (Kemler): 36

UN-Number: 1992

Packaging group: III

Description of goods: 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (CYCLOHEXANONE, 2-butoxyethanol)

Maritime transport IMDG: IMDG Class: 3

UN Number: 1992

Label : 3+6.1

Packaging group: III

EMS Number: F-E,S-D

Marine pollutant: No

Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (CYCLOHEXANONE, 2-butoxyethanol)

Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class: 3

UN/ID Number: 1992

Label: 3+6.1

Packaging group:III

Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (CYCLOHEXANONE, 2-butoxyethanol)

UN "Model Regulation": UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), III

15 Regulations

Sara

Section 355 (extremely hazardous substances): None of the ingredient is listed.

Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65

Chemicals known to cause cancer: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.

Chemicals known to cause developmental toxicity: None of the ingredients is listed.

Carcinogenicity categories

EPA (Environmental Protection Agency) 111-76-2 2-butoxyethanol: CBD

IARC (International Agency for Research on Cancer) 108-94-1 Cyclohexanone: 3

111-76-2 2-butoxyethanol: 3 NTP (National Toxicology Program) None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH) 108-94-1 Cyclohexanone: A3

111-76-2 2-butoxyethanol: A3

MAK (German Maximum Workplace Concentration) 108-94-1 Cyclohexanone: 3B

111-76-2 2-butoxyethanol: 4

NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration) None of the ingredients is listed.

Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

Hazard symbols: Xn Harmful

Hazard-determining components of labeling: Cyclohexanone 2-butoxyethanol

Risk phrases:

10 Flammable.

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

36/38 Irritating to eyes and skin.

Safety phrases:

9 Keep container in a well-ventilated place.

- 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
36/37 Wear suitable protective clothing and gloves.
60 This material and its container must be disposed of as hazardous waste.

National regulations: Technical instructions (air): Class Share in % NK 60-80
Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

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

- **Department issuing MSDS:** Technical Services
- **Contact:** Mr. K. Medhi

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

