

SAFETY DATA SHEET

Section 1. Identification

Product name	: Optimization Pen & Ink	
Material uses	: Correction fluid	
Manufacturer	: Newell Rubbermaid 3500 Lacey Road, 10th Floor Downers Grove, IL 60515 USA 800-323-0749 or 630-829-2500	
Emergency telephone number (with hours of operation)	: CHEMTREC (U.S. and Canada) 1-800-424-9300	

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 2 TOXIC TO REPRODUCTION (Fertility) - Category 2
GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	: Highly flammable liquid and vapor. Suspected of damaging fertility.
Precautionary statements	
General	: Read label before use. If medical advice is needed, have product container or label at hand.
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed.
Response	: IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	 Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
n-hexane	2 - 5	110-54-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed				
Potential acute health effects				
Eye contact :	No known significant effects or critical hazards.			
Inhalation :	No known significant effects or critical hazards.			
Skin contact :	No known significant effects or critical hazards.			
Ingestion :	No known significant effects or critical hazards.			
Over-exposure signs/symptoms				
Eye contact :	No specific data.			
Inhalation :	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations			
Skin contact :	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations			
Ingestion :	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations			

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Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary		
Notes to physician	 Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 	
Specific treatments	: No specific treatment.	
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.	

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. For non-emergency Evacuate surrounding areas. Keep unnecessary and unprotected personnel from personnel entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. If specialised clothing is required to deal with the spillage, take note of any information For emergency responders in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel". : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains **Environmental precautions** and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Methods and materials for containment and cleaning up

Small spill Stop leak if without risk. Move containers from spill area. Use spark-proof tools and

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in
	container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact
	information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling	1	
Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
n-hexane	ACGIH TLV (United States, 6/2013).
	Absorbed through skin.
	TWA: 50 ppm 8 hours.
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 50 ppm 8 hours.
	TWA: 180 mg/m ³ 8 hours.
	NIOSH REL (United States, 10/2013).
	TWA: 50 ppm 10 hours.
	TWA: 180 mg/m ³ 10 hours.
	OSHA PEL (United States, 2/2013).
	TWA: 500 ppm 8 hours.
	TWA: 1800 mg/m ³ 8 hours.

Section 8. Exposure controls/personal protection

Appropriate engineering controls	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas,
	vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measur	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Date of issue/Date of revision	: 5/27/2015. Date of previous issue : No previous validation. Version : 1 5/10
Flammability (solid, gas)	: Not available.
Evaporation rate	: Not available.
Burning rate	: Not applicable.
Burning time	: Not applicable.
Flash point	: Closed cup: 0°C (32°F)
Boiling point	: Not available.
Melting point	: Not available.
рН	Not applicable.
Odor threshold	: Not available.
Odor	: Solvent.
Color	: White.
Physical state	: Liquid.
<u>Appearance</u>	

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	1	Not available.
Vapor density	1	Not available.
Relative density	1	Not available.
Solubility	1	Not available.
Solubility in water	1	Not available.
Partition coefficient: n- octanol/water	:	Not available.
Auto-ignition temperature	1	Not available.
Decomposition temperature	:	Not available.
SADT	1	Not available.
Viscosity	1	Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-hexane	LC50 Inhalation Gas. LD50 Oral	Rat Rat	48000 ppm 15840 mg/kg	4 hours -
rritation/Corrosion				

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-hexane	Eyes - Mild irritant	Rabbit	-	10 milligrams	-

Sensitization

No known significant effects or critical hazards.

Mutagenicity

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

No known significant effects or critical hazards.

Section 11. Toxicological information

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs	
n-hexane	Category 3	Not applicable.	Narcotic effects	
Specific target organ toxicity (repeated exposure)				
Name	Category	Route of exposure	Target organs	
n-hexane	Category 2	Not determined	Not determined	
Aspiration hazard				
Name		Result		
n-hexane		ASPIRATION HAZARD - Category 1		

Information on the likely : Not available. routes of exposure

Delayed and immediate effects and also chronic effects from short and long term exposure

<u>Short term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Suspected of damaging fertility.
Potential chronic health effe	ects
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
n-hexane	Acute LC50 2500 μg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

No known significant effects or critical hazards.

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Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
n-hexane	4	501.187	high

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	ΙΑΤΑ
UN number	UN1993	UN1993	UN1993	UN1993	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (Naphtha (petroleum), hydrotreated light, n-hexane)	FLAMMABLE LIQUIDS, N.O.S. (Naphtha (petroleum), hydrotreated light, n-hexane)	FLAMMABLE LIQUIDS, N.O.S. (Naphtha (petroleum), hydrotreated light, n-hexane)	FLAMMABLE LIQUIDS, N.O.S. (Naphtha (petroleum), hydrotreated light, n-hexane). Marine pollutant (titanium dioxide, n-hexane)	FLAMMABLE LIQUIDS, N.O.S. (Naphtha (petroleum), hydrotreated light, n-hexane)
Transport hazard class(es)	3	3	3		3
Packing group	Ш	11	11	11	11
Environmental hazards	No.	No.	No.	Yes.	No.
Additional information		-	-	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

Section 14. Transport information

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : United States inventory (TSCA 8b): All components are listed or exempted.

SARA 311/312

Classification

: Fire hazard Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	hazard	Sudden release of pressure		(acute) health	Delayed (chronic) health hazard
n-hexane	2 - 5	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	n-hexane	110-54-3	2 - 5
Supplier notification	n-hexane	110-54-3	2 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

This product does not contain Chemicals known to State of California to cause cancer, birth defects, or reproductive harm.

Canada WHMIS (Canada) : Class B-2: Flammable liquid Class D-2A: Material causing other toxic effects (Very toxic). **Canadian lists Canadian NPRI** : The following components are listed: n-Hexane; Heavy alkylate naphtha **CEPA Toxic substances** : None of the components are listed. **Canada inventory** : All components are listed or exempted.

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 5/27/2015.
Date of previous issue	: No previous validation.
Version	: 1
Prepared by	: Product Safety.
Key to abbreviations	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient UN = United Nations

Indicates information that has changed from previously issued version.

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Section 16. Other information

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.